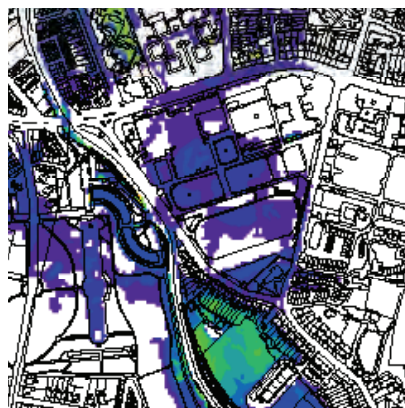
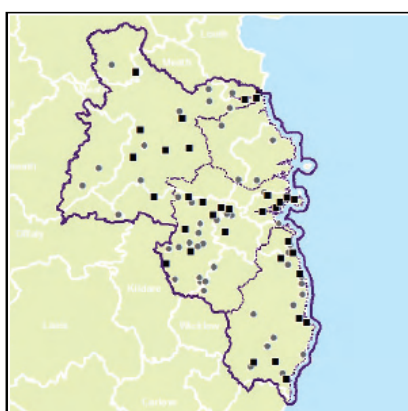




Eastern CFRAM Study

Appropriate Assessment - Screening Report

IBE0600Rp0034





Eastern CFRAM Study

Flood Risk Management Measures Appropriate Assessment: Screening

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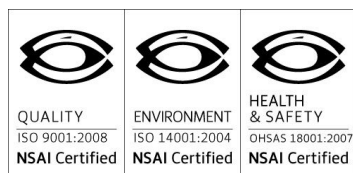
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LIST OF ABBREVIATIONS

AA	Appropriate Assessment
AFA	Area(s) for Further Assessment
CFRAM	Catchment Flood Risk Assessment and Management [Study]
CJEU	the Court of Justice of the European Union
EC	European Commission
EIA	Environmental Impact Assessment
FRMP	Flood Risk Management Plan
DAHG	Department of Arts, Heritage and the Gaeltacht
DARD	Department of Agriculture and Rural Development (Northern Ireland)
DECLG	Department of Environment Community and Local Government
DEHLG	Department of Environment, Heritage and Local Government
EPA	Environmental Protection Agency
ERBD	Eastern River Basin District
FEMFRAM	Fingal East Meath Flood Risk Assessment and Management Study
FPM	Freshwater Pearl Mussel
FRA	Flood Risk Assessment
FRM	Flood Risk Management
FRMP	Flood Risk Management Plan
UoM	Hydrometric Area
HDA	Habitats Directive Assessment
IRBD	International River Basin District
IROPI	Imperative Reasons of Overriding Public Interest
MCA	Multi-Criteria Analysis
NBIRBD	Neagh Bann International River Basin District
NHA	Natural Heritage Area
NIEA	Northern Ireland Environment Agency
NIS	Natura Impact Statement
NPWS	National Parks and Wildlife Service
NWIRBD	North Western International River Basin District
OPW	Office of Public Works

PP	Plan or Project
RBD	River Basin District
RBMP	River Basin Management Plan
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SI	Statutory Instrument
SPA	Special Protection Area
SuDS	Sustainable Drainage Systems
UoM	Unit of Management
WFD	Water Framework Directive

1 INTRODUCTION AND BACKGROUND

1.1 THE FLOODS DIRECTIVE

The Floods Directive is being implemented in Ireland through the European Communities (Assessment and Management of Flood Risks) Regulations 2010 [S.I.122/2010] (as amended by S.I.495/2015). These Regulations appoint the Office of Public Works (OPW) as the Competent Authority for the Flood Risk Management Plans (FRMPs), which set out the measures and policies that should be pursued to achieve the most cost effective and sustainable management of flood risk. The Statutory Instrument also identifies roles for other organisations; such as the Local Authorities, Waterways Ireland, the Electricity Services Board (ESB) and Irish Water, to undertake certain duties with respect to flood risk within their existing areas of responsibility.

In Ireland, the approach to implementing the Directive has focused on a national Catchment-based Flood Risk Assessment and Management programme. This was developed to meet the requirements of the Floods Directive, as well as to deliver on core components of the 2004 report of the Flood Policy Review Group (OPW, 2004). Pilot Catchment-based Flood Risk Assessment and Management (CFRAM) studies have been undertaken since 2006 in the Dodder and Tolka catchments, the Lee Catchment, the Suir Catchment and in the Fingal / East Meath area.

The national CFRAM programme is being progressed via six engineering consultancy projects which are based at the scale of the Water Framework Directive (WFD) River Basin Districts (RBDs). Collectively these six projects will focus on 300 Areas for Further Assessment¹ (AFAs) countrywide.

The Eastern CFRAM Study was the second CFRAM Study to be commissioned. The Study area covers approximately 6,250 km² and includes four Units of Management (UoM); each comprised of a single Hydrometric Area (HA). They are UoM07 (Boyne), UoM08 (Nanny – Delvin), UoM09 (Liffey-Dublin Bay) and UoM10 (Avoca-Vartry). Additional information on each UoM is presented in section 3.1.2.

At the completion of the national CFRAM programme, each UoM will have its own Flood Risk Management Plan (FRMP).

1.1.1 Eastern Catchment-based Flood Risk Assessment and Management Study

The CFRAM Studies and their product – the Flood Risk Management Plans – are at the core of the national policy for flood risk management and the strategy for its implementation. The methodology featured in each CFRAM Study includes the collection of survey data and the assembly and analysis of meteorological, hydrological and tidal data, which are used to develop a suite of hydraulic computer models. Flood maps are one of the main outputs of the Study and are the way in which the model results are communicated to end users. The studies will assess a range of potential options to manage the flood risk and determine which, if any, is preferred for each area and will be recommended for implementation within the FRMPs. The CFRAM Studies will focus on areas where the risk is understood to be most significant, namely the AFAs, which are listed in Table 3.1 and shown in Figure 3.4

¹ AFAs are settlement areas which have been defined as a result of the first phase of implementation of the Floods Directive, the Preliminary Flood Risk Assessment (PFRA), completed in 2011. The PFRA identified areas of existing or foreseeable future potentially significant flood risk (originally referred to as 'Areas of Potential Significant Risk', or 'APSRs') and these areas are what are now referred to in the FRMPs as 'Areas for Further Assessment', or 'AFAs'.

The FRMPs arising from the Eastern CFRAM Study are strategic plans and as described below in Section 2.1 are subject to the provisions of Article 6(3) of the EU Habitats Directive via the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) ('the 2011 Regulations'). The 2011 Regulations transpose the provisions of the Habitats Directive 92/43/EEC into Irish law and consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in judgements of the Court of Justice of the European Union (CJEU).

As with Strategic Environmental Assessment (SEA), it is accepted best-practice for the Appropriate Assessment of strategic planning documents, in the context of the 2011 Regulations, to be run as an iterative process alongside the Plan development, with the emerging proposals or options continually assessed for their possible effects on European sites and modified or abandoned (as necessary) to ensure that the subsequently adopted Plan is not likely to result in significant adverse effects on any European sites, either alone or 'in combination' with other plans.

It is therefore important to recognise that the assessment of strategic plans is an important aspect in guiding the development of the Plan (and demonstrating that this has been done) as it is about (ultimately) assessing its effects.

1.2 LEGISLATIVE CONTEXT

The 'Habitats Directive' (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora) provides legal protection for habitats and species of European importance. The main aim of the Habitats Directive is *"to contribute towards ensuring biodiversity through the conservation of natural habitats of wild fauna and flora in the European territory of the Member States to which the treaty applies"*. Actions taken in order to fulfil the Directive must be designed to: *"maintain or restore, at a favourable conservation status, natural habitats and species of wild fauna and flora of Community interest"*.

A key outcome of the Habitats Directive is the establishment of Natura 2000, an ecological infrastructure developed throughout Europe for the protection of sites that are of particular importance for rare, endangered or vulnerable habitats and species. In Ireland, Special Areas of Conservation (SACs), together with Special Protection Areas (SPAs) designated under the 'Birds Directive' (Council Directive 2009/147/EC - codified version of Directive 79/409/EEC on the Conservation of Wild Birds, as amended), are included in the Natura 2000 network², and are hereafter referred to as '**European sites**'.

² Natura 2000 sites are protected by Article 6(3) of the Habitats Directive. Protection is given to SACs from the point at which the European Commission and the Government agree the site as a 'Site of Community Importance' (SCI). Article 6(3) of the Habitats Directive and Article 4(4) of the Birds Directive also apply (respectively) to any other site or area that the Commission believes should be considered as an SAC or SPA, until their status is determined. Under the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) the term 'European site' applies to any designated SAC or SPA; any SCI; any candidate SCI (cSCI); any candidate SAC (cSAC); and any candidate or proposed SPA (pSPA).

A central protection mechanism of the Habitats Directive is the requirement of competent authorities to undertake Appropriate Assessment³ (AA), also known as a Habitats Directive Assessment (HDA) to consider the possible nature conservation implications of any plan or project on European sites before any decision is made to allow the plan or project to proceed.

The 2011 Regulations provide the following definition of a plan: *“subject to the exclusion, except where the contrary intention appears, of any plan that is a land use plan within the meaning of the Planning Acts 2000 to 2011, includes-*

- (a) any plan, programme or scheme, statutory or non-statutory, that establishes public policy in relation to land use and infrastructural development in one or more specified locations or regions, including any development of land or on land, the extraction or exploitation of mineral resources or of renewable energy resources and the carrying out of land use activities, that is to be considered for adoption authorisation or approval or for the grant of a licence, consent, permission, permit, derogation or other authorisation by a public authority, or*
- (b) a proposal to amend or extend a plan or scheme referred to in subparagraph (a)”*

Not only is every new plan or project captured by the requirements of the 2011 Regulations, but each plan or project, when being considered for approval at any stage, must take into consideration the possible effects it may have in combination with other plans and projects.

Article 6(3) of the Habitats Directive states: *“Any plan or project not directly connected with or necessary to the management of the [European] 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 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.”*

Article 6(4) is the procedure for allowing derogation from this strict protection, in certain restricted circumstances:

Article 6(4) of the Habitats Directive states: *“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 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.”*

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures. First, the plan should aim to avoid any impacts on European sites by identifying possible impacts early in the plan-making process and writing the plan in order to avoid such impacts. Second,

³ ‘Appropriate Assessment’ has been historically used as an umbrella term to describe the process of assessment in its entirety from screening to IROPI (Imperative Reasons of Overriding Public Interest). The assessment process is now more commonly divided into distinct stages, one of which (Stage 2) is the ‘appropriate assessment’ stage. The overall process is often referred to as an ‘Article 6 Assessment’ or ‘Habitats Directive Assessment’ for convenience, although these terms are not included within the legislation.

mitigation measures should be applied, if necessary, during the AA process to the point where no adverse impacts on the site(s) remain. If the plan is still likely to result in impacts on European sites, and no further practicable mitigation is possible, then it must be rejected. If no alternative solutions are identified and the plan is required for imperative reasons of overriding public interest (IROPI test) under Article 6(4) of the Habitats Directive, then compensation measures are required for any remaining adverse effect.

2 APPROACH

2.1 GUIDANCE

The European Commission (EC) has produced non-mandatory methodological guidance (EC, 2000, 2002, 2007) in relation to the process of AA which suggests a four-stage process, although not all steps may necessarily be required. The process recommends an initial “test of likely significance”, or “screening” followed, if necessary, by appropriate assessment. The Department of Environment, Heritage & Local Government⁴ (DEHLG) has transposed the principles of the European Commission guidance into a document specific to Ireland entitled ‘*Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities*’ (DEHLG, 2010).

A summary of the stages is given below and additional detail on the iterative process by which each of the stages is reached and concluded is given overleaf in Figure 2.1.

Stage One: Screening or ‘Test of Likely Significance’ - the process which identifies the likely impacts upon a European site of a project or plan, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant;

Stage Two: Appropriate Assessment - the consideration of the impact on the integrity of the European site of the project or plan, either alone or in combination with other projects or plans, with respect to the site’s structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts;

Stage Three: Assessment of Alternative Solutions - Where adverse effects remain after the inclusion of mitigation, this Stage examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of European Sites;

Stage Four: Assessment Where Adverse Impacts Remain - an assessment of compensatory measures where, in the light of an assessment of Imperative Reasons of Overriding Public Interest (IROPI), it is deemed that the project or plan should proceed.

This report incorporates the Stage One – Screening process only.

⁴ Since 2011 known as the Department of Community, Environment and Local Government (DECLG)

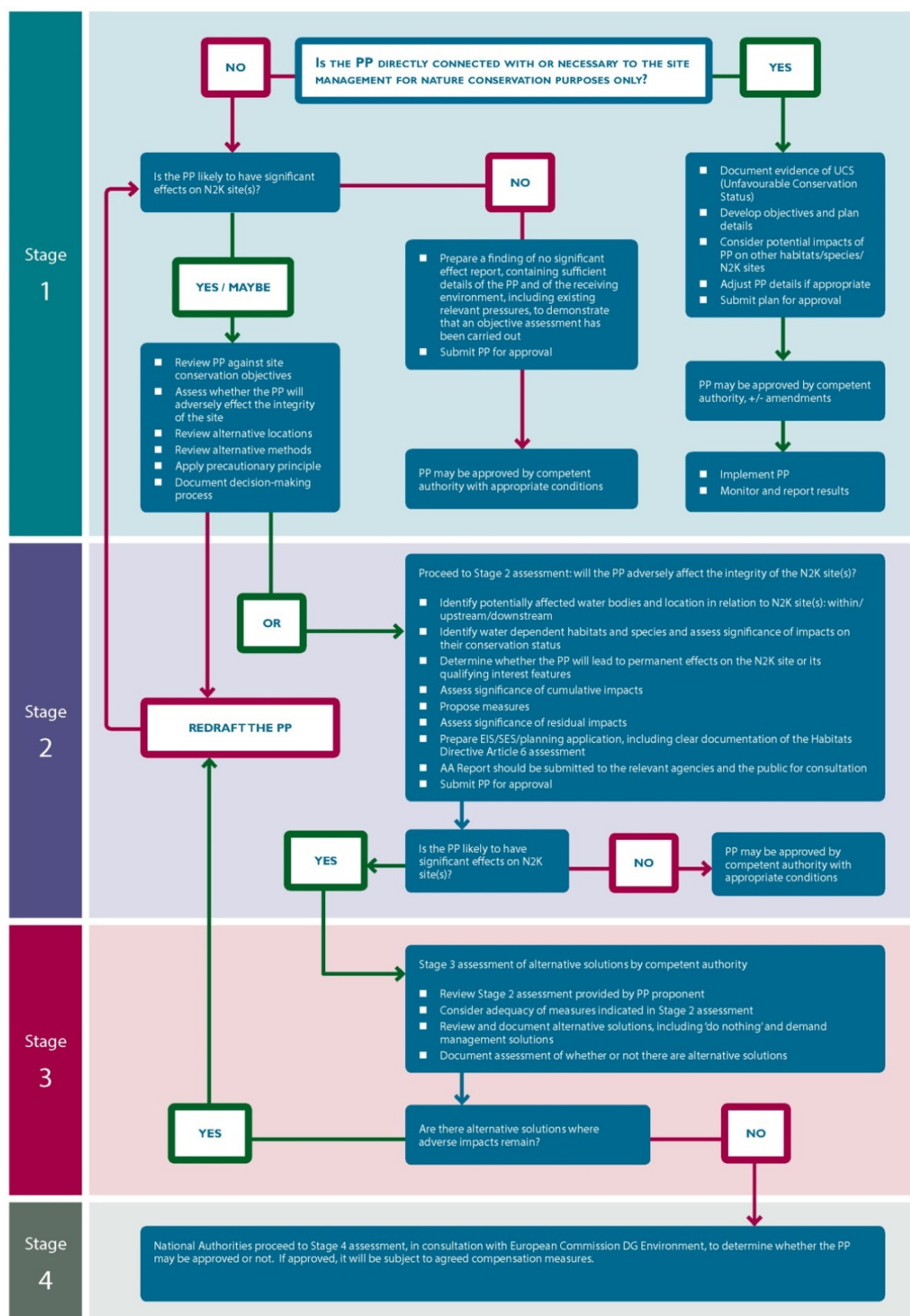


Figure 2.1: Schematic of the stages of Appropriate Assessment

The following guidance has been used during the preparation of this Screening Report in support of the Eastern CFRAM Study FRMPs:

- DEHLG (2009 –rev. 2010) Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities
- EC (2002) Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC
- EC (2000) Managing Natura 2000 sites: the provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC
- EC (2011) Guidelines on the Implementation of the Birds and Habitats Directives in Estuaries and Coastal Zones
- EC (2007) Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC
- EC (2013) Guidelines on Climate Change and Natura 2000 Dealing with the impact of climate change on the management of the Natura 2000 Network of areas of high biodiversity value
- EPA (2012) Integrated Biodiversity Impact Assessment best practice guidance; Streamlining AA, SEA and EIA Processes, Best Practice Guidance
- NPWS (2014) The Status of EU Protected Habitats and Species in Ireland 2013 – Overview Report
- Scottish Natural Heritage (2015) Habitats Regulation Appraisal of Plans, Guidance for Plan-Making Bodies in Scotland (version 3).

The staged approach summarised above and in Figure 2.1 works well at the project-level where the scheme/project design is established and possible effects on European sites can be quantitatively assessed with the benefit of detailed survey data. In contrast, the nature of the Eastern CFRAM Study and each of its FRMPs presents a number of distinct challenges for a ‘strategic’ AA; in particular, every possible outcome of each FRMP cannot always be identified and assessed in detail, since it is not within the remit of the FRMPs to develop detailed designs for individual risk management measures. However, it is possible and appropriate for the higher tier plan to specify strategic mitigation measures, which set out in broad terms what must be provided at the project level, in order to be able to conclude that there would be no adverse effects.

The FRMPs must therefore rely on precautionary ‘avoidance measures’ or mitigation within the text to ensure that significant adverse effects do not occur as a result of their implementation. It is thus important to understand how the FRMPs arising from the Eastern CFRAM Study are developed, how they will be implemented, how they will operate in practice and hence how they might consequently affect European sites when identifying suitable measures. It is also important to note that the safeguards set out in Article 6(3) and (4) of the Habitats Directive are triggered not by certainty, but by the possibility of significant effects and that the precautionary approach to identifying the potential impacts of the plan is maintained at all levels. Section 3.1.3 discusses these aspects in more detail.

3 STAGE 1: SCREENING FOR APPROPRIATE ASSESSMENT

Screening is the process of deciding whether or not an Appropriate Assessment is required for a plan or project. It addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3) of the Habitats Directive, i.e.

- Whether a plan or project is directly connected to or necessary for the management of the site; and
- Whether a plan or project, alone or in-combination with other plans and projects, is likely to have significant effects on a European site in view of its Qualifying Interest Features and their corresponding Conservation Objectives.

The Screening Stage includes:

- Site location and description of the plan or project;
- Identification and initial screening of European sites for potential negative effects;
- Screening conclusion.

The assessment of likely significant effects is based on the likelihood and significance of any effects of the proposed variation on each European site's qualifying features, particularly with reference to the relevant conservation objectives. In this context, the likelihood depends on whether there is the opportunity and pathway for the effect to occur, and the significance is regarded as the effect on the susceptible qualifying features of the site(s). If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 Appropriate Assessment.

3.1 DESCRIPTION OF THE PLAN

3.1.1 The Eastern CFRAM Study and its associated FRMPs

The Eastern CFRAM Study is not directly connected with or necessary to the management of any European site.

The objectives of the Eastern CFRAM Study are to:

- Identify and map the existing and potential future flood hazard⁵ within the Study area;
- Assess and map the existing and potential future flood risk⁶ within the Study area;
- Identify viable structural and non-structural options and measures for the effective and sustainable management of flood risk in the AFAs and within the Study area as a whole, and

⁵ Potential future flood hazards and risk include those that might foreseeably arise (over the long-term) due to the projected effects of climate change, future development and other long-term developments.

⁶ Flood risk is defined as a combination of probability and degree of flooding and the adverse consequences of flooding on human health, people and society, the environment, cultural heritage and economic activity and infrastructure.

- Prepare a set of FRMPs for the Study area, and undertake associated Strategic Environmental Assessment and, as necessary, Appropriate Assessment, that sets out the policies, strategies, measures and actions that should be pursued by the relevant bodies, including the OPW, Local Authorities and other stakeholders, to achieve the most cost-effective and sustainable management of existing and potential future flood risk within the Study area, taking account of environmental plans, objectives and legislative requirements and other statutory plans and requirements.

It is not an objective of the FRMPs to develop detailed designs for individual flood risk management measures.

3.1.2 Site Location

As outlined earlier in Section 1.1.11.1.1, the Eastern CFRAM Study area includes four Units of Management (UoM) / Hydrometric Areas (HAs), each of which will have its own FRMP. The UoMs constitute major catchments / river basins (typically greater than 1,000km²) and their associated coastal areas, or conglomerations of smaller river basins and their associated coastal areas. The UoM boundaries match the UoM boundaries within the Eastern CFRAM Study area.

3.1.2.1 UoM07

UoM07 is a predominantly rural catchment with the major urbanised areas being Drogheda and Navan. Within UoM07 the OPW has implemented and maintains the Boyne arterial drainage scheme, which has resulted in significant alteration of the natural river channels in some areas to improve conveyance capacity and reduce flooding of agricultural land. Whilst not intended as a flood alleviation scheme, the arterial drainage works has undoubtedly reduced the fluvial flood risk in certain parts of UoM07.

Within UoM07 there are ten Areas for Further Assessment (AFA). The principal source of flood risk in UoM07 is fluvial flooding, with nine of the ten AFAs being subject to varying degrees of fluvial flood risk. Tidal flood risk within UoM07 is limited to the Boyne Estuary, in which three AFAs, Baltray, Mornington and Drogheda have a considerable element of coastal flood risk. The location of the UoMs and the AFAs in the Eastern CFRAM Study area are shown in Figure 3.1.

3.1.2.2 UoM08

UoM08 was studied as a pilot project called the Fingal East Meath Flood Risk Assessment and Management Study (FEMFRAM). This FRAM Study will be brought forward as the FRMP for UoM08. The FEM FRAM Study was also subject to a separate SEA and AA and therefore has not been included in this screening. The Natura Impact Statement (NIS) will also incorporate the conclusions of the FEMFRAM AA, where appropriate, for in-combination and cumulative impacts with the other CFRAM FRMPs.

3.1.2.3 UoM09

UoM09 is a relatively urbanised catchment in an Irish context, containing Greater Dublin and its surrounding commuter belt. There are significant towns and developments along the N4 and N7 national road corridors, including Naas, Celbridge and Maynooth. However the upland portions of

the catchment are rural in nature hosting agricultural, forestry and power generation land uses and the Wicklow Mountains National Park.

Within UoM09 there are 19 Areas for Further Assessment (AFA), shown in Figure 3.1. Dublin City AFA encompasses several discrete channels which are designated as high priority watercourses (HPWs) and also discrete urban areas which are subject to fluvial flood risk, coastal flood risk or both. All of these discrete elements are listed under the heading of Dublin City AFA and have been analysed and modelled separately.

There have also been two previous pilot FRAM studies undertaken within UoM09, those being for the Tolka catchment (completed in 2003) and the Dodder catchment (completed in 2010). These studies will be incorporated within the FRMP for UoM09. These studies have also been subject to their own AAs, the conclusions of which will also be included in the NIS, where appropriate, for in-combination and cumulative effects. It should be noted that the FEM FRAM Study also included a small area of UoM09.

3.1.2.4 UoM10

Within UoM10 there are 10 Areas for Further Assessment (AFA), shown in Figure 3.1. UoM10 has mixed catchment land use, with the major urbanised areas, including Loughlinstown, Old Connaught/Wilford, Bray, Greystones, Kilcoole, Newcastle, Ashford/Rathnew and Wicklow being generally located along the coastline while the upland hinterland is more rural in nature but contains significant settlements including Avoca and Aughrim.

Two further High Priority Watercourses (HPWs) were specified by OPW; the Deansgrange and Carrickmines/Shanganagh Rivers which are associated with and reported alongside the Loughlinstown AFA.

3.1.2.5 Projects running in Parallel with the Eastern CFRAM Study

Certain projects involving the implementation of FRM methods have been prioritised within the Eastern CFRAM Study area and consequently are at a more advanced stage than other AFAs in the RBD. These include the AFAs of Sandymount and Clontarf for which Dublin City Council have undertaken the Optioneering and also AFAs on the Camac, Poddle and Morrell rivers. Wicklow County Council is progressing schemes for the Dargle in Bray and for Arklow. These projects will be taken into consideration in terms of in combination and cumulative effects with the FRMPs during Stage 2 of the Appropriate Assessment.

3.1.3 Methodology for the Appropriate Assessment

Although the AA is being carried out on activities occurring within the functional area of the proposed plans, the likely significance of the effects of the proposed plans will be assessed on European sites in adjacent river basins. Each element of the model may exist independently, however a potential impact is only created where there is a linkage between the source, pathway and receptor. The NIS will review and incorporate the conclusions of the other CFRAM FRMPs, where appropriate, for in-combination and cumulative impacts.



Figure 3.1: Eastern CFRAM Study Area and Associated Units of Management

Figure 3.2 illustrates the structure and spatial scales of assessment of the National CFRAM programme, the Eastern CFRAM Study, the FRMPs and the individual AFAs and HPWs within each UoM.

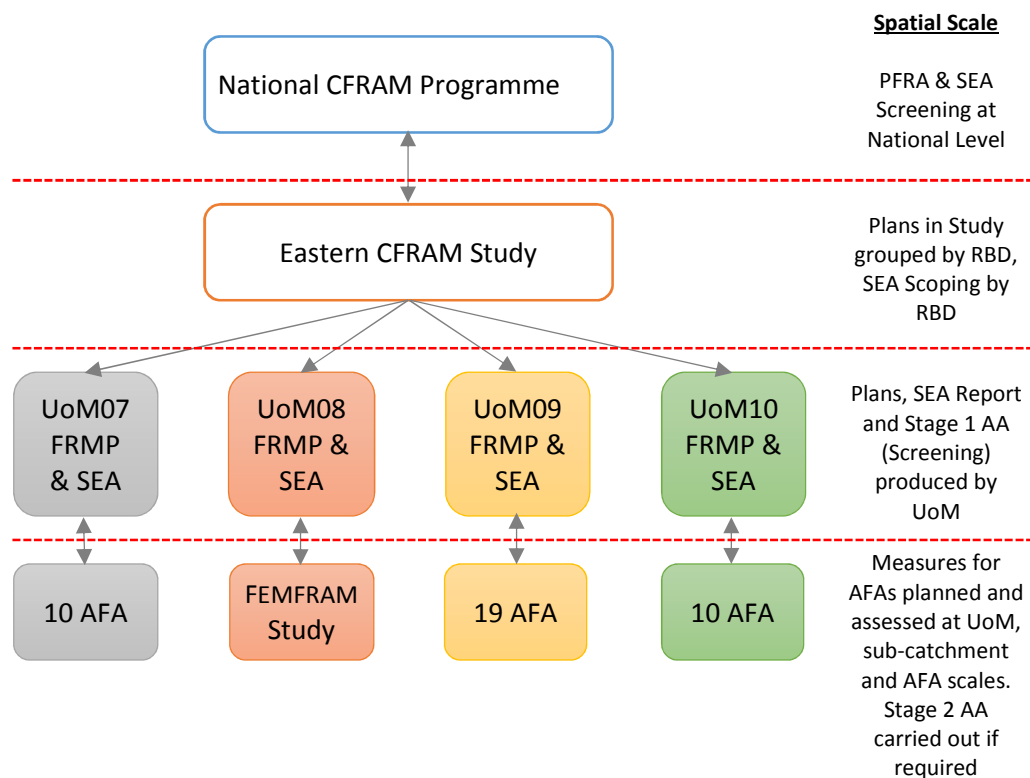


Figure 3.2: Spatial Scales of Assessment in the Eastern CFRAM Study, FRMPs, SEAs and AA

The list of the AFAs being investigated as part of the Eastern CFRAM Study is given in Table 3.1. It should be noted that the Dublin City AFA has been subdivided into eight discrete areas: the High Priority Watercourses (HPWs) of the Camac, Carysfort/Maretimo, Lower Liffey, Poddle and Santry Rivers (collectively shown on mapping and in this assessment as “Dublin City HPWs”) while Clontarf, Raheny and Sandymount are coastal AFAs within the Dublin City AFA and have been assessed as discrete sites. In addition to the Santry River being a HPW, Santry is also an AFA. Where alternate nomenclature is use for AFAs in this report, this is shown in italics.

Table 3.1: AFAs in the Eastern CFRAM Study

AFA	County	Unit of Management
Athboy	Meath	7
Ballivor	Meath	7
Baltray	Louth	7
Drogheda	Louth & Meath	7
Edenderry & Environs <i>Edenderry</i>	Offaly	7
Johnstown Bridge	Kildare	7
Longwood	Meath	7
Mornington	Meath	7
Navan	Meath	7

AFA	County	Unit of Management
Trim	Meath	7
Baldonnell	Dublin	9
Blessington	Wicklow	9
Celbridge	Kildare	9
Clane	Kildare	9
Dublin City <i>(includes Dublin City HPWs, Clontarf, Raheny and Sandymount)</i>	Dublin	9
Hazelhatch	Dublin	9
Kilcock	Kildare	9
Leixlip	Kildare	9
Lucan to Chapelizod	Dublin	9
Maynooth	Kildare	9
Naas	Kildare	9
Newbridge	Kildare	9
Santry	Dublin	9
Sutton & Baldoyle	Dublin	9
Sutton & Howth North	Dublin	9
Turnings <i>Turnings/Killeenmore</i>	Kildare	9
Ashford & Rathnew	Wicklow	10
Aughrim	Wicklow	10
Avoca	Wicklow	10
Bray	Dublin & Wicklow	10
Greystones & Environs <i>Greystones</i>	Wicklow	10
Kilcoole	Wicklow	10
Loughlinstown	Dublin	10
Newcastle	Wicklow	10
Old Connaught / Wilford	Dublin	10
Wicklow	Wicklow	10

As illustrated in Figure 3.2, there will be a FRMP produced for each UoM. For each FRMP produced there will be an associated SEA Environmental Report and Natura Impact Statement. In accordance with the 2011 Regulations, the Natura Impact statement will be a report comprising the scientific examination of the Plan [the FRMP] and the relevant European site (or sites), to identify and characterise any possible implications of the plan either individually or in combination with other plans or projects, in view of the conservation objectives of the site or sites. It will also include any further information including but not limited to, plans, maps or drawings, scientific data or information or data required to enable the carrying out of an appropriate assessment.

Each Natura Impact Statement will feed into and influence the related SEA Environmental Report and both environmental reports will feed into and influence the draft FRMPs as they evolve. Following completion of all three documents, there will be a consultation period to allow statutory and non-statutory consultees, along with the public, to comment on the Plans and Reports produced.

Under the 2011 Regulations, an appropriate assessment carried out shall *“include a determination by the public authority, pursuant to Article 6(3) of the Habitats Directive as to whether or not the plan...⁷ would adversely affect the integrity of a European site... before a decision is made to approve, undertake or adopt a plan”*.

Figure 3.3 gives an overview of the iterative process being undertaken as part of the CFRAM Study to develop the final Flood Risk Management (FRM) measures. Within each FRMP the proposed FRM *Methods* necessary at an AFA Spatial Scale of Assessment (SSA)⁸ will be considered. At this scale, methods benefitting only the particular AFA in question are considered, even if the implementation of a given method includes works or activities outside of the AFA, i.e., elsewhere in the sub-catchment or UoM. Examples of where this might apply would be storage options upstream of the AFA, or flood forecasting and warning systems, that provide benefits to no other AFAs than the AFA under consideration.

For each AFA to be assessed, the starting point is a long list of FRM *Methods* that could be implemented. These *Methods* will go through an initial screening to determine their technical and economic feasibility, along with their anticipated high level environmental and social impacts. The environmental considerations in the FRMP screening are based on the potential for high level impacts on designated European sites in the first instance (in addition to UNESCO world heritage sites, however UNESCO recognition is not relevant to appropriate assessment, unless the site is also designated under the Birds and Habitats Directives).

⁷ (or project)

⁸ The AFA SSA refers to an individual AFA; such areas would include towns, villages, areas where significant development is anticipated and other areas or structures for which the risk that could arise from flooding is understood to be significant.

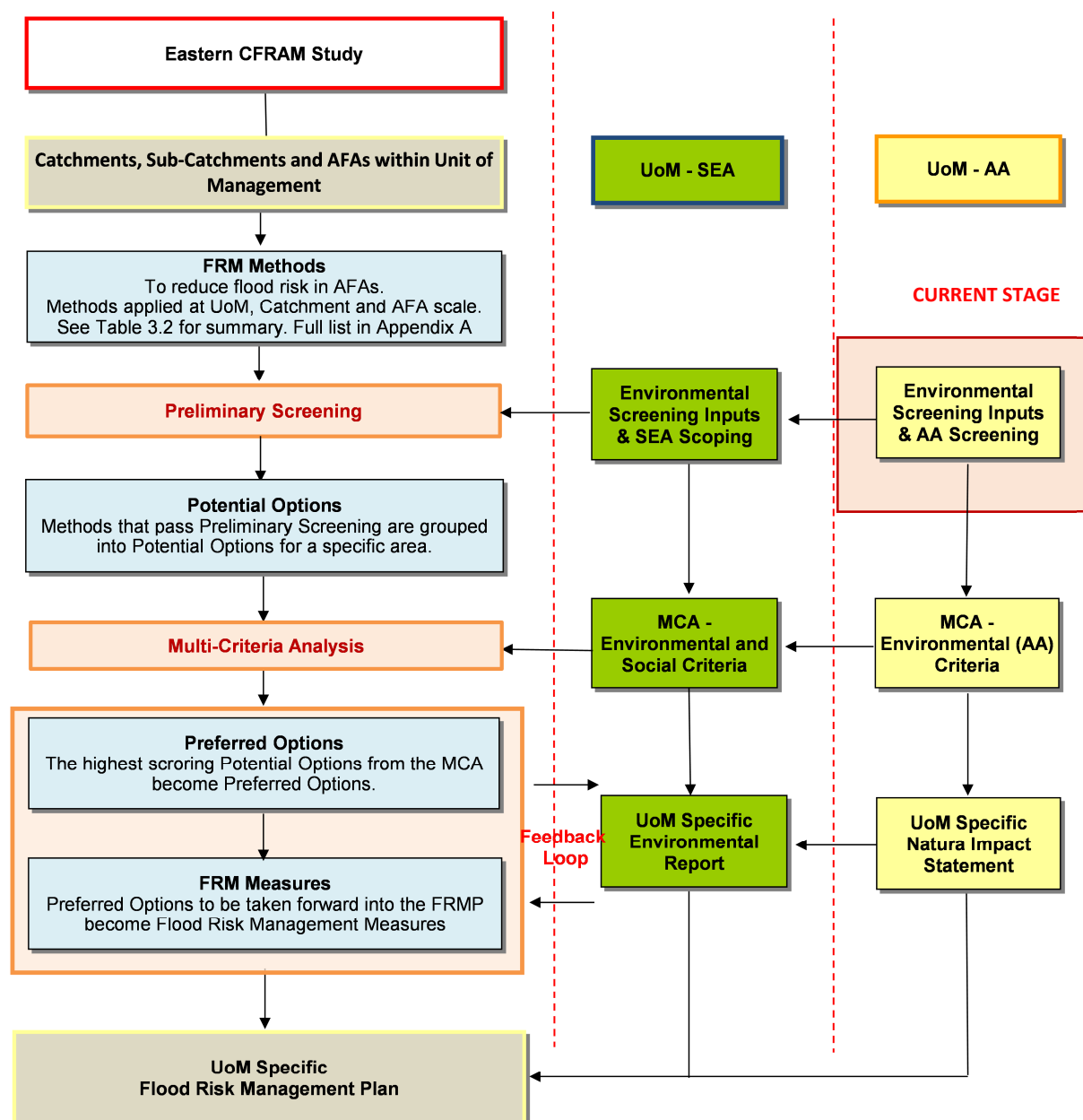


Figure 3.3: Interactions of the Plan and Environmental Assessments

Methods that are found to be technically, economically, socially and environmentally acceptable in the preliminary screening will then be combined into groups of *Options*, which will be subjected to detailed Multi-Criteria Analysis (MCA), looking at technical, economic, social and environmental criteria. The highest scoring *Option* for each AFA will be put forward into the draft FRMP as the *Preferred Option*. The Preferred Option(s) for each AFA is then taken forward into the FRMPs where they are presented as the selected Flood Risk Management Measures. The SEA and NIS are critical for the MCA as they provide necessary information for the environmental and social inputs.

3.2 ELEMENTS OF THE FRMPs WITH POTENTIAL TO CAUSE ADVERSE IMPACTS ON EUROPEAN SITES

Table 3.2 below summarises the long list of FRM methods that are screened for potential implementation within FRMPs. Screening is undertaken at UoM, sub-catchment, AFA (and potentially sub-AFA) level.

A description of high-level environmental impacts that may arise from implementation of each method is provided in Appendix A. These high level impacts were provided to the statutory SEA consultees, progress and steering group members and stakeholders, for consultation as part of the Eastern CFRAM Study SEA scoping in September / October 2015.

Table 3.2: Summary of Flood Risk Management Methods

Method	Description
Do Nothing	Implement no new flood risk management measures and abandon any existing practices.
Maintain Existing Regime	Continue with any existing flood risk management practices, such as reactive maintenance.
Do Minimum	Implement additional minimal measures to reduce the flood risk in specific problem areas without introducing a comprehensive strategy, includes channel or flood defence maintenance works / programme.
Planning and Development Control	Zoning of land for flood risk appropriate development, prevention of inappropriate incremental development, review of existing Local Authority policies in relation to planning and development and of inter-jurisdictional co-operation within the catchment, etc.
Building regulations	Regulations relating to floor levels, flood-proofing, flood resilience, sustainable drainage systems, prevention of reconstruction or redevelopment in flood-risk areas, etc.
Catchment Wide Sustainable Drainage Systems (SuDS)	Implement SuDS on a catchment wide basis.
Land Use management (NFM)	Creation of wetlands, riparian buffer zones, etc.
Strategic Development Management	Necessary floodplain development (proactive integration of structural measures into development designs and zoning, regulation on developer-funded communal retention, drainage and / or protection systems, etc.)
Upstream Storage	Single or multiple site flood water storage, flood retardation, etc.
Improvement of Channel Conveyance	In-channel works, floodplain earthworks, removal of constraints / constrictions, channel / floodplain clearance, etc.
Hard Defences	Construct walls, embankments, demountable defences, Rehabilitate and / or improve existing defences, etc.
Relocation of Properties	Relocation of properties away from flood risk.
Diversion of Flow	Full diversion / bypass channel, flood relief channel, etc.

Other works	Minor raising of existing defences / levels, infilling gaps in defences, site specific localised protection works, etc.
Flood Warning / Forecasting	Installation of a flood forecasting and warning system and development of emergency flood response procedures.
Public Awareness Campaign	Targeted public awareness and preparedness campaign.
Individual Property Flood Resistance	Protection / flood-proofing and resilience.

3.3 RELATIONSHIP WITH OTHER RELEVANT PLANS AND PROGRAMMES

The Eastern CFram Study Study is set in a flood risk management planning context, where plans, projects and activities and their associated SEA and AA requirements are all linked.

Further examination of the FRMPs by the AA will take account of the OPW's obligation to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management led by the WFD and implemented by the River Basin Management Plans (RBMPs).

Table 3.3 identifies the main significant environmental plans, programmes and legislation, adopted at International, European Community or Member State level, which would be expected to influence, or be influenced by, the Eastern FRMPs. While it is recognised that there are many plans, programmes and legislation that will relate to the FRMPs, it is considered appropriate to only deal with those significant texts, to keep the assessment at a strategic level.

Table 3.3: List of Other Plans and Projects with potential for in-Combination Effects

Plan/Programme
European Level
<ul style="list-style-type: none"> ▪ EU Floods Directive [2007/60/EC] ▪ A Blueprint to Safeguard Europe's Water Resources [COM(2012)673] ▪ Bathing Water Directive [2006/7/EC] ▪ Birds Directive [2009/147/EC] ▪ Bonn Convention [L210, 19/07/1982 (1983)] ▪ Drinking Water Directive [98/83/EC] ▪ EIA Directive [85/337/EEC] [2014/52/EU] ▪ Environmental Liability Directive [2004/35/EC] ▪ Environmental Quality Standards Directive [2008/105/EC] ▪ EU Biodiversity Strategy to 2020 [COM(2011)244] ▪ European Landscape Convention [ETS No. 176] ▪ Groundwater Directive [80/68/EEC] and Daughter Directive [2006/118/EC] ▪ Habitats Directive [92/43/EEC] ▪ Marine Strategy Framework Directive [2008/56/EC]

- Nitrates Directive [91/676/EEC]
- Renewable Energy Directive [2009/28/EC]
- SEA Directive [2001/42/EC]
- Second European Climate Change Programme [ECCP II] 2005.
- Sewage Sludge Directive [86/278/EEC]
- Soils Thematic Strategy [COM(2006) 231]
- Urban Wastewater Treatment Directive [91/271/EEC]
- Water Framework Directive [2000/60/EC]
- World Heritage Convention [WHC-2005/WS/02]

National Level

- Arterial Drainage Maintenance and High Risk Designation Programme 2011-2015 (OPW, 2011)
- Fisheries Acts 1959 to 2007 (S.I. No. 14 of 1959 and No. 17 of 2007)
- Harnessing Our Ocean Wealth: An Integrated Marine Plan for Ireland (Inter-Departmental Marine Coordination Group 2012)
- Irish Geological Heritage (IGH) Programme (GSI 1998-)
- Irish Water - Capital Investment Programme (Irish Water, 2014)
- Irish Water Water -Services Strategic Plan (Irish Water, 2015)
- National Biodiversity Plan (2nd Revision 2011-2016) (DAHG, 2011)
- National Climate Change Strategy 2007-2012 (DEHLG, 2007)
- National Forestry Programme 2014-2020 (DAFM, 2014)
- National Landscape Strategy for Ireland (Draft) 2014 – 2024 (DAHG, 2014)
- National Monuments Acts (1930 to 2004) (S.I. No. 2 of 1930 & No. 22 of 2004)
- National Renewable Energy Action Plan (DCENR, 2010)
- National Spatial Strategy 2002-2020 (DELG, 2002)
- National Strategic Aquaculture Plan (DAFM, 2015)
- Planning System and Flood Risk Management (OPW, 2009)
- Raised Bog SAC Management Plan (Draft) (DAHG, 2014),
- National Peatland Strategy (Draft) (NPWS, 2014)
- Review of Raised Bog Natural Heritage Area Network (NPWS, 2014)
- Report of the Flood Policy Review Group (OPW, 2004)
- Rural Development Programme 2014-2020 (DAFM, 2014)
- The Planning System and Flood Risk Management: Guidelines for Planning Authorities (OPW, 2009)

Regional Level

- **Flood Risk Management Plans**
- Draft Transport Strategy for the Greater Dublin Area 2015-2035 (NTA)
- Dublin Water Supply Project (DCC)
- River Basin Management Plans
- Regional Planning Guidelines
- Regional Development Strategies/Plans
- Groundwater Protection Schemes

Sub-Regional Level

- County and Town Development Plans

- County Landscape Character Assessments
- County Renewable Energy Strategies
- Dodder CFRAM Study (Dublin City Council, 2010)
- Dublin Port Master Plan 2012 -2040 (Dublin Port Company)
- Dun Laoghaire Harbour Company Port Master Plan
- Economic development plans for rural and urban areas
- Fingal East Meath FRAMS (Fingal County Council, 2012)
- Fisheries Management Plans
- Freshwater Pearl Mussel Sub-Basin Management Plans
- Greater Dublin Strategic Drainage Strategy
- Heritage Plans
- Housing Strategies
- Local Area Plans
- Local Authority 'Local Economic and Community Development Plans'
- Local Biodiversity Action Plans
- Local Catchment Flood Risk Management Plans
- Planning Schemes for Strategic Development Zones (SDZ)
- Shellfish Pollution Reduction Programmes
- Sludge Management Plans
- Special Amenity Area Orders
- Tolka CFRAM Study (Dublin City Council, 2003)
- Water Quality Management Plans

3.4 EUROPEAN SITES

Special Areas of Conservation (SACs) are prime wildlife conservation areas, considered to be important on a European as well as Irish level. Most SACs are in rural areas, although a few sites reach into town or city landscapes, such as Dublin Bay and Cork Harbour.

SACs are selected under the Habitats Directive for the conservation of a number of habitat types, which in Ireland includes raised bogs, blanket bogs, turloughs, sand dunes, machair (flat sandy plains on the north and west coasts), heaths, lakes, rivers, woodlands, estuaries and sea inlets. There are 25 species of flora and fauna including Salmon, Otter, Freshwater Pearl Mussel, Bottlenose Dolphin and Killarney Fern are also afforded protection. These are known as Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds).

The areas chosen as SAC in Ireland cover an area of approximately 13,500km². Roughly 53% is land, the remainder being marine or large lakes. Across the EU, over 12,600 sites have been identified and proposed, covering 420,000km² of land and sea, an area the size of Germany.

Special Protection Areas, (SPAs) are conservation areas which are important sites for rare and vulnerable birds (as listed on Annex I of the Birds Directive), and/or for regularly occurring migratory species. SPAs are designated under the 'Birds Directive' (Council Directive 2009/147/EC - codified version of Directive 79/409/EEC on the Conservation of Wild Birds, as amended).

Ireland's SPA Network encompasses over 5,700km² of marine and terrestrial habitats. The marine areas include some of the productive intertidal zones of bays and estuaries that provide vital food resources for several wintering wader species. Marine waters adjacent to breeding seabird colonies and other important areas for seaducks, divers and grebes are also included in the network. The remaining areas of the SPA network include inland wetland sites important for wintering waterbirds and extensive areas of blanket bog and upland habitats that provide breeding and foraging resources for species including Merlin and Golden Plover. Agricultural land also represents a share of the SPA network, ranging from the extensive farmland of upland areas where its hedgerows, wet grassland and scrub offer feeding and/or breeding opportunities for Hen Harrier to the intensively farmed coastal polderland where internationally important numbers of swans and geese occur. Coastal habitats including Machair are also represented in the network, which are of high importance for Chough and breeding Dunlin.

3.4.1 Initial Screening Exercise

3.4.1.1 Capture of Sites for Screening – Study Scale

As recommended in the *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities* (DEHLG, 2010), all European sites within a 15 kilometre precautionary buffer area of the Eastern CFRAM Study area were included in the screening.

It is acknowledged that as the nature of the FRMPs includes the potential to impact water quality and/or quantity, there is thus the potential for ecological receptors (particularly those that are water dependent) to experience potential impacts at distances even greater than 15km from the source. In the Eastern CFRAM Study, each Unit of Management represents a single Hydrometric Area, each of which, generally speaking, has its river sources rising in an upland area and terminating at the

coastline. The boundary of the Hydrometric Area represents a defined watershed, beyond which watercourses drain into a different river basin and a different part of the coastline.

The limit of the CFRAM Study Area therefore incorporates a tangible boundary for hydraulic and hydrological impacts. The OPW recognises that there are other potential impact pathways other than hydraulic/hydrological pathways for ecological receptors, but as discussed in 3.1.3, the preliminary screening of *Methods* examines technical, economic, social and environmental aspects before subjecting the selected *Options* to detailed Multi-Criteria Analysis (MCA), again looking at technical, economic, social and environmental criteria. The method screening process recognises the significant areas for nature conservation which have European protection. In this way, *Methods* or *Options* which pose a significant risk of impacts can be ruled out in the earliest stages of *Option* development, therefore ensuring that *Options* which have the potential to generate impacts that extend their influence more than 15km beyond the limits of the Eastern CFRAM Study area are not taken forward for MCA and to the FRMPs.

It should be noted, however, that within each of the Units of Management, the 'Zone of Influence' for each European site was not limited to 15km. The methodology for screening the individual European sites is discussed in more detail in 3.4.1.2 below.

The initial site selection exercise was carried using the ESRI ArcMap GIS package, into which was loaded the most recently issued boundary shapefiles for all SACs and SPAs in Ireland, each respectively downloaded from the NPWS⁹ website. These were cross-referenced against the boundary shapefile for the Eastern CFRAM Study area. A search area of 15km from the boundary of the Eastern CFRAMs Study area was applied and all European sites either wholly or partially within this search area were captured. This exercise is illustrated in Figure 3.4, which shows the extents of the preliminary search area and the outlines of all the SAC and SPA areas within and adjacent to the Eastern CFRAM Study area.

The initial selection exercise for the Eastern CFRAM Study resulted in a total of 78 European sites being captured for screening.

⁹ <http://www.npws.ie/maps-and-data/designated-site-data/download-boundary-data> SPA_ITM_2015_11a.zip and SAC_ITM_WGS84_2015_11a.zip (accessed 17 November 2015)

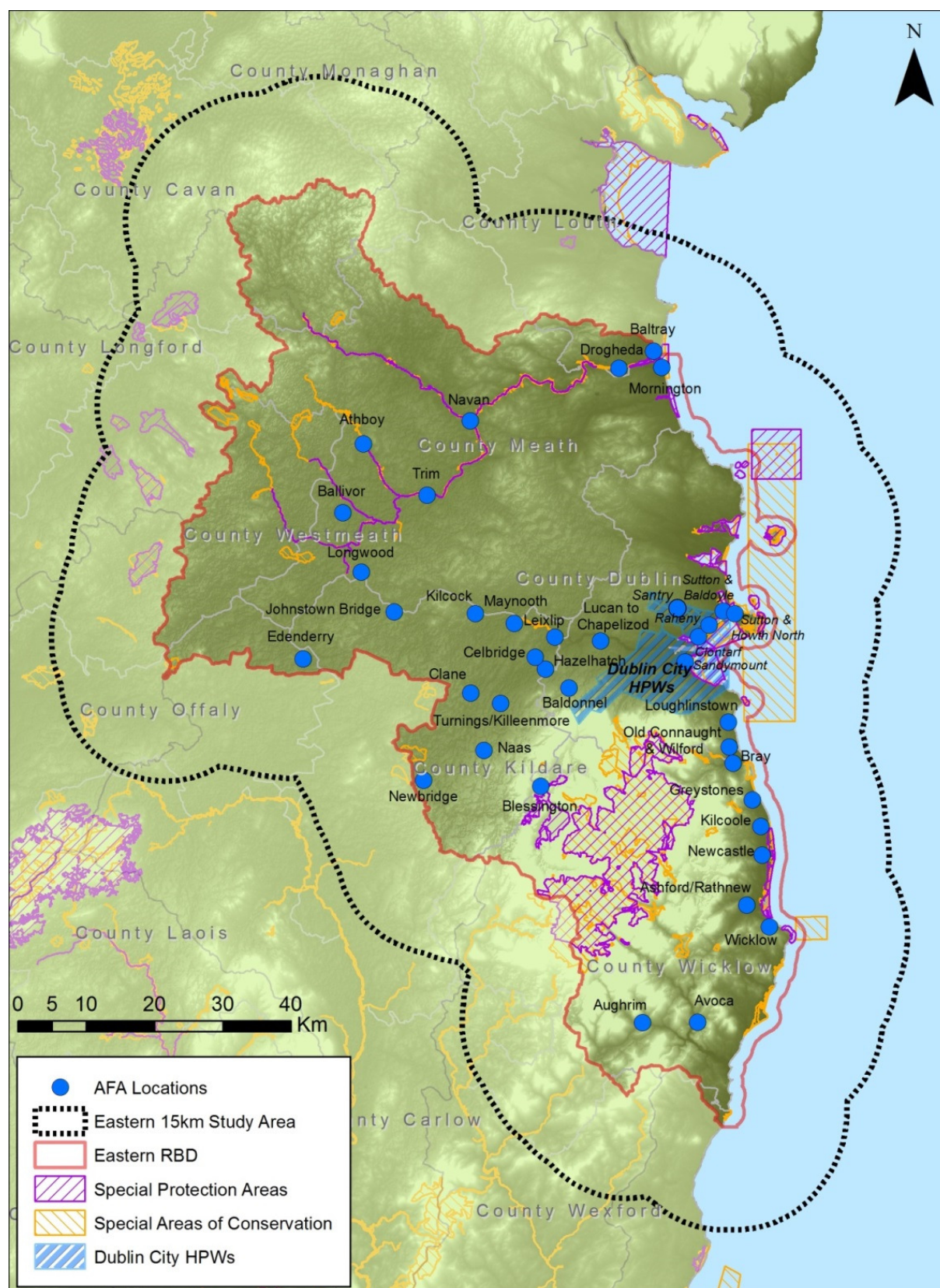


Figure 3.4: Eastern CFRAM Study Area, showing AFAs and Study-Scale Search Area for European Sites

3.4.1.2 European Site Screening – Plan Scale

The UoM SSA refers to a full hydrometric area. At this scale, methods that could provide benefits to multiple, often all, AFAs within the Unit of Management and other areas should be considered, along with the spatial and temporal coherence of methods being considered at smaller SSAs.

As discussed above in Section 3.1.3, each UoM will have its own FRMP and thus the screening of European sites has been grouped in this report by UoM (the results of each UoM/FRMP are summarised in Sections 3.5 to 3.7).

The capture of sites to be screened for each FRMP area was carried out the same way as the methodology for capturing the sites to be screened in the overall CFRAM Study, described above in 3.4.1.1. Each FRMP coverage area (i.e. each Unit of Management) was queried against the shapefiles for all Irish SACs and SPAs in ESRI ArcMap and all sites within 15km of each FRMP coverage area were captured for screening. The rationale for limiting the scope of the FRMP-scale capture area to 15km has been previously discussed in 3.4.1.1.

3.4.1.3 European Site Screening – Establishment of the ‘Zone of Influence’

For each UoM/FRMP area, every European site captured by the GIS exercise described in 3.4.1.2 above was examined individually.

A ‘Zone of Influence’ was established for each European site. The ‘Zone of Influence’ for each site automatically comprised all areas within 15km of the European site. It also included all catchment areas located upstream of the European site to the top of the catchment and any watercourses downstream of the European site. This was achieved by manually examining hydraulic data, specifically EPA datasets for WFD catchment areas, sub-basin catchments and watercourses.

For coastal sites, the ‘Zone of Influence’ extended across the coastal and intertidal areas within 15km of the boundary of the European site. Again, for the reasons listed above, it was not considered necessary at the Plan scale to extend the ‘Zone of Influence’ beyond 15km.

Every AFA (regardless of distance) located within the Zone of Influence for each European site was examined for potential connectivity pathways (both hydraulic and ecological) with the European site.

For purposes of reporting, distances were calculated using the ‘near table’ tool in ArcMap which measured the distance between each European site and the nearest point of each AFA (note: not the nearest point of the AFA’s catchment, but as the AFA itself is likely to be the focus of any FRM activity this was gauged to be the most appropriate site for initiating measurements). The tool produced a spreadsheet listing the distance between each European site and each AFA boundary. All distances quoted in the screening tables have been derived from the “near table” tool.

3.4.1.4 European Site Screening – Assessment

The risk of adverse impact on the European sites was evaluated by examining their location in relation to the AFA boundaries and, in the case of those AFAs at risk of fluvial flooding, the entire extents of their upstream catchments and downstream watercourses.

The relationship between the AFAs (including their upstream catchments and downstream reaches) and each of the European sites was individually reviewed by an experienced assessor. Consideration was given to whether any potential impact pathway between the AFA and the European Site could be identified, either by a hydraulic connection or by virtue of an ecological stepping stone or biodiversity corridor.

The assessment took into account all of the potential FRM methods included in the “long list” of FRM methods shown earlier in Table 3.2 (also discussed in more detail in Appendix A) and the potential for *any* of these methods to result in impacts to any of the European sites, either alone or in combination with other methods. The assessment reviewed the potential for:

- Direct Impacts, examples of which include (but are not limited to):
 - A construction footprint within the boundary of a European site, or
 - A construction footprint outside a European site but which may obstruct the passage of a qualifying feature in accessing a European Site.
- Indirect Impacts, example of which include (but are not limited to):
 - Short term water quality impacts associated with construction works, for example, suspended sediment and sedimentation impacts;
 - Changes to existing hydrological and morphological regimes.

The likely significance of effects on the European sites from the implementation of FRM measures at each of the AFAs, or in their catchments/sub catchments, taking into account their qualifying interests and conservation objectives, was assessed taking into account the source-pathway-receptor model.

The source is defined as the individual element of the plan (at this stage, the source is each/any of the *Methods*, but when each FRMP has been developed, the source will be each of the chosen *Measures*) that has the potential to impact on a European site, its qualifying features and its conservation objectives. The pathway is defined as the means or route by which a source can migrate to the receptor. For the Eastern CFRAM Study the pathways for potential impacts are primarily hydraulic, i.e. via watercourses and hydrological catchments, but the potential for linkages by other means (e.g. via an ecological stepping stone or biodiversity corridor) was also examined during the screening process. The receptor is defined as the European site and its qualifying features. Each element can exist independently, however a potential impact is created where there is a linkage between the source, pathway and receptor.

NPWS guidance recommends that appropriate assessment screening is informed by the conservation condition of the qualifying interest/s of a European site, however as this screening covers an entire plan area rather than individual projects within the plan, the condition of the qualifying interest was not considered to be relevant, as the purpose of the screening is to identify which European sites may be at risk of experiencing impacts and not, at this stage, assessing the potential significance of any potential impacts.

Each European site was individually reviewed to identify whether there were potential impact pathways evident from FRM methods to be employed at any of the AFAs (or in the catchment of any AFAs) in the Eastern CFRAM Study area. This included analysing river and stream network, topographic and catchment datasets to ascertain the presence or absence of hydraulic linkages

between AFAs and European sites and also examining the potential for impacts on other areas of biodiversity value, such as NHAs (or pNHAs), wildfowl reserves or nature reserves, which may provide a stepping stone between European sites, or wider areas where mobile qualifying interests (e.g. migratory fish or birds) may be affected by changes, outside the boundary of the designated area.

A total of 51 SACs and 27 SPAs were identified as being within, or within 15km of, the Eastern CFRAM Study area. These were included in the screening process.

Where no apparent linkages or relationships were found between the European site and the AFA or its modelled catchment, a conclusion of “no identifiable impact pathway” was drawn and the site was eliminated from the screening process. Where a connectivity or linkage was possible, the precautionary principle was applied and the site was retained in the screening and has been recommended for further assessment (which may include appropriate assessment) at the FRMP stage.

The Preliminary Options Reports for each UoM were used to help define the upstream limits of the AFA’s influence. As part of the Optioneering process for each FRMP, Spatial Scales of Assessment (SSAs) have been developed for each UoM (‘include official definition of SSA’). For some UoMs, the upstream/upcatchment storage FRM method has already been ruled out at this stage and therefore it was possible to rule out potential impacts on European sites from upcatchment FRM methods during the AA screening. In UoMs where upstream/upcatchment FRM methods have not been ruled out, all upcatchment areas were retained in the screening process.

No specific distance limit was applied to downstream impacts and these were reviewed on a case-by-case basis.

The European sites screened for potential adverse impacts from the Eastern CFRAM Study have been grouped by UoM¹⁰, as each UoM will ultimately have its own FRMP. The results of the screening are summarised in Table 3.4 (UoM07), Table 3.6 (UoM09) and Table 3.8 (UoM10). Full details of the screening exercise are presented in Appendix B.

The ‘Natura 2000 Standard Data Form’, ‘Conservation Objectives’ and ‘Site Synopsis’ documents for each of the European sites can be found on the National Parks & Wildlife Service website¹¹, along with other relevant survey information and documents for each site. For each of the European Sites identified in the screening process these documents were downloaded and were used to inform the screening.

¹⁰ Note that in certain cases European sites may be influenced by AFAs in more than one UoM and so may be duplicated in the screening

¹¹ <http://www.npws.ie/protectedsites/> (accessed 5th and 6th October 2015)

3.5 SCREENING RESULTS FOR UOM07

There were 36 European sites (24 SACs and 12 SPAs) found within the Screening Search Area of UoM07 (see Figure 3.5).

All European sites in the search area were screened for possible impacts from all FRM methods at all AFAs in UoM07. The results of the screening exercise are summarised in Table 3.4 and Table 3.5.

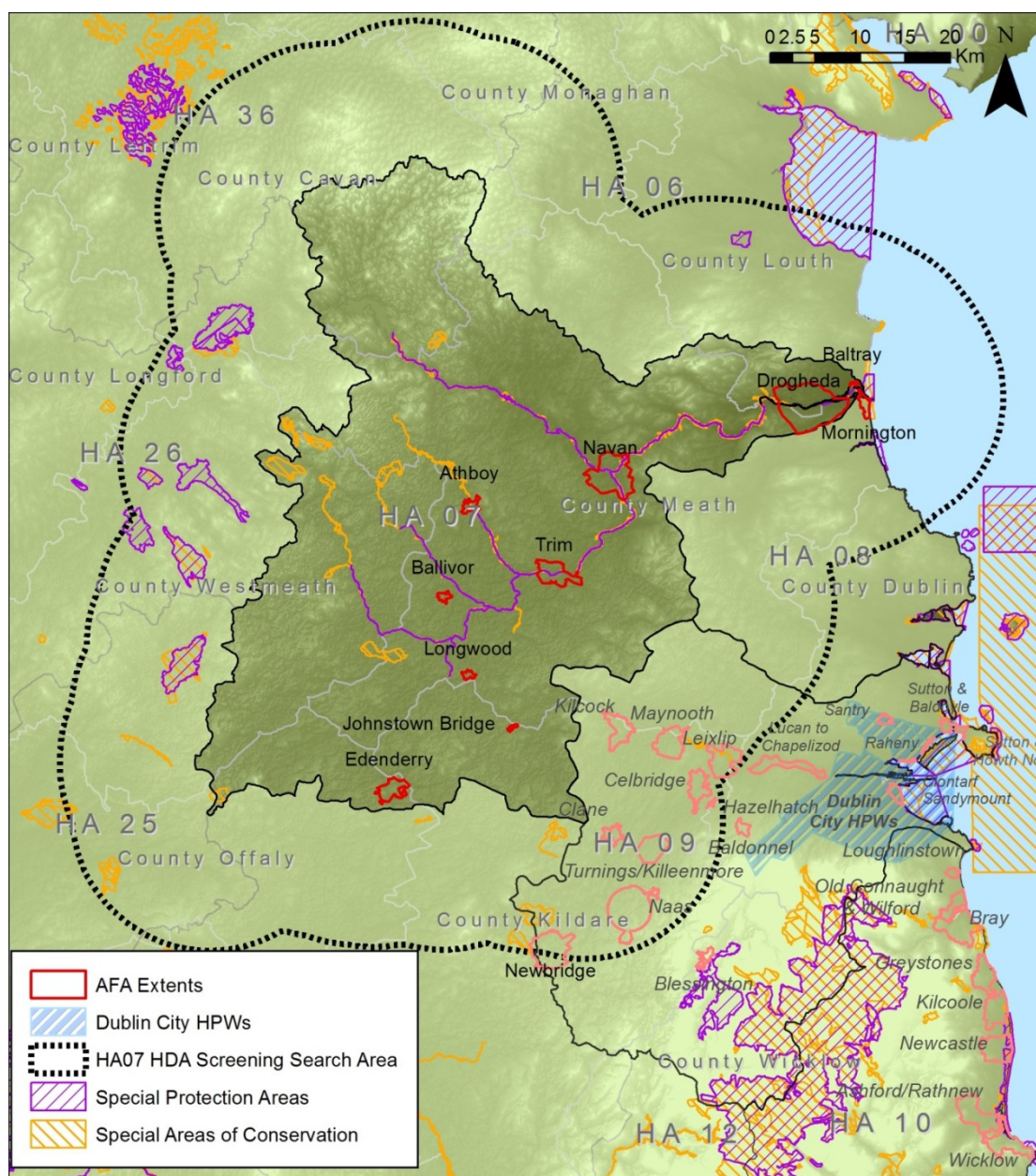


Figure 3.5: UoM07 European Sites subjected to Screening

Table 3.4: European Sites screened for UoM07

	Site Name	Site Code	County	UoM	Water Dependent	AFA's within Zone of Influence of European Site	AFA's that have an Identifiable Impact Pathway to European Site	Screened Out of UoM07 FRMP?
1	Ballynafagh Bog SAC	000391	Kildare	outside UoM	Yes	Johnstown Bridge (11.9km) (also Celbridge (14.2km), Clane (3.8km), Hazelhatch (15.8km), Kilcock (10.1km), Maynooth (13.3km), Naas (8.2km), Newbridge (9.9km) and Turnings/Killeenmore (7.9km) in UoM09)	None	Yes
2	Ballynafagh Lake SAC	001387	Kildare	outside UoM	Yes	Edenderry (15.8km), Johnstown Bridge (11.1km), (also Celbridge (14.9km), Clane (5.0km), Kilcock (9.8km), Maynooth (13.4km), Naas (7.5km), Newbridge (8.1km), Turnings/Killeenmore (8.9km) in UoM09)	None	Yes
3	Boyne Coast And Estuary SAC	001957	Louth, Meath	07, 08	Yes	Athboy (40km), Ballivor (47.4km), Baltray (0.0 km), Drogheda (0.0 km), Edenderry (63km), Johnstown Bridge (50km), Longwood (50km), Mornington (0.0 km), Navan (23.4 km), Trim (34km)	Athboy, Ballivor, Baltray, Drogheda, Edenderry, Johnstown Bridge, Longwood, Mornington, Navan, Trim	No
4	Boyne Estuary SPA	004080	Louth, Meath	07,08	-	Athboy (40km), Ballivor (47.4km), Baltray (0.0 km), Drogheda (0.0 km), Edenderry (63km), Johnstown Bridge (50km), Longwood (50km), Mornington (0.0 km), Navan (23.4 km), Trim (34km)	Athboy, Ballivor, Baltray, Drogheda, Edenderry, Johnstown Bridge, Longwood, Mornington, Navan, Trim	No
5	Charleville Wood SAC	000571	Offaly	outside UoM	Yes	None from UoM07	None	Yes
6	Clara Bog SAC	000572	Offaly	outside UoM	Yes	None from UoM07	None	Yes
7	Clogher Head SAC	001459	Louth	outside UoM	Yes	Baltray (5.9km), Drogheda (7.9km), Mornington (6.7km)	None	Yes

	Site Name	Site Code	County	UoM	Water Dependent	AFAs within Zone of Influence of European Site	AFAs that have an Identifiable Impact Pathway to European Site	Screened Out of UoM07 FRMP?
8	Dundalk Bay SAC	000455	Louth	outside UoM	Yes	Baltray (15.5km) Drogheda (15.3km).	None	Yes
9	Dundalk Bay SPA	004026	Louth	outside UoM	-	Baltray (13.6km), Drogheda (14.9km), Mornington (14.5km)	None	Yes
10	Garriskil Bog SAC	000679	Westmeath	outside UoM	Yes	None from UoM07	None	Yes
11	Garriskil Bog SPA	004102	Westmeath	outside UoM	-	None from UoM07	None	Yes
12	Killyconny Bog (Cloghbally) SAC	000006	Meath, Cavan	07	Yes	None from UoM07	None	Yes
13	Lough Bane And Lough Glass SAC	002120	Meath, Westmeath	07	Yes	Athboy (15.9km)	None	Yes
14	Lough Derravaragh SPA	004043	Westmeath	outside UoM	-	None from UoM07	None	Yes
15	Lough Ennell SAC	000685	Westmeath	outside UoM	Yes	None from UoM07	None	Yes
16	Lough Ennell SPA	004044	Westmeath	outside UoM	-	None from UoM07	None	Yes
17	Lough Iron SPA	004046	Westmeath	outside UoM	-	None from UoM07	None	Yes
18	Lough Kinale and Derragh Lough SPA	004061	Cavan, Longford, Westmeath	outside UoM	-	None from UoM07	None	Yes
19	Lough Lene SAC	002121	Westmeath	07	Yes	None from UoM07	None	Yes
20	Lough Owel SAC	000688	Westmeath	outside UoM	Yes	None from UoM07	None	Yes
21	Lough Owel SPA	004047	Westmeath	outside UoM	-	None from UoM07	None	Yes

	Site Name	Site Code	County	UoM	Water Dependent	AFA's within Zone of Influence of European Site	AFA's that have an Identifiable Impact Pathway to European Site	Screened Out of UoM07 FRMP?
22	Lough Sheelin SPA	004065	Cavan, Meath, Westmeath	outside UoM	-	None from UoM07	None	Yes
23	Moneybeg And Clareisland Bogs SAC	002340	Meath, Westmeath	outside UoM	Yes	None from UoM07 (screening summary located under UoM09 in Appendix B)	None	Yes
24	Mouds Bog SAC	002331	Kildare	09	Yes	None from UoM07	None	Yes
25	Mount Hevey Bog SAC	002342	Meath, Westmeath	07	Yes	Ballivor (6.9km), Edenderry (12.7km), Johnstown Bridge (13.8km), Longwood (6.3km)	None	Yes
26	Pollardstown Fen SAC	000396	Kildare	outside UoM	Yes	None from UoM07 (screening summary located under UoM09 in Appendix B)	None	Yes
27	Raheenmore Bog SAC	000582	Offaly	07	Yes	None	None	Yes
28	River Boyne And River Blackwater SAC	002299	Cavan, Louth, Meath, Westmeath	07	Yes	Athboy (0.0km), Ballivor (1.0km), Baltray (2.6km), Drogheda (0.0km), Edenderry (12.5km), Johnstown Bridge (8.7km), Kilcock (13.3km), Longwood (1.1km), Mornington (2.8km), Navan (0.0km) Trim (0.0km)	Athboy, Ballivor, Baltray, Drogheda, Edenderry, Johnstown Bridge, Longwood, Mornington, Navan and Trim	No
29	River Boyne and River Blackwater SPA	004232	Cavan, Louth, Meath, Westmeath	07	-	Athboy (0.0km), Ballivor (1.0km), Baltray (8.2km), Drogheda (0.0km), Edenderry (12.5km), Johnstown Bridge (8.7km), Kilcock (15.1km), Longwood (1.1km), Mornington (8.8km), Navan (0.0km) Trim (0.0km)	Athboy, Ballivor, Baltray, Drogheda, Edenderry, Johnstown Bridge, Longwood, Mornington Navan and Trim	No
30	River Nanny Estuary and Shore SPA	004158	Meath	08	-	Baltray (5.5km), Drogheda (3.8km), Mornington (1.7km)	Baltray, Drogheda, Mornington	No

	Site Name	Site Code	County	UoM	Water Dependent	AFAs within Zone of Influence of European Site	AFAs that have an Identifiable Impact Pathway to European Site	Screened Out of UoM07 FRMP?
31	Rye Water Valley/Carton SAC	001398	Meath, Kildare	09	Yes	None from UoM07 <i>(screening summary located under UoM09 in Appendix B)</i>	None	Yes
32	Scragh Bog SAC	000692	Westmeath	outside UoM	Yes	None	None	Yes
33	Split Hills And Long Hill Esker SAC	001831	Westmeath	outside UoM	-	None	None	Yes
34	Stabannan-Braganstown SPA	004091	Louth	outside UoM	-	Drogheda (15.7km)	None	Yes
35	The Long Derries, Edenderry SAC	000925	Offaly	outside UoM	-	Edenderry (2.9km), Johnstown Bridge (12.9km), Longwood (15.7km)	None	Yes
36	White Lough, Ben Loughs And Lough Doo SAC	001810	Meath, Westmeath	07	Yes	None	None	Yes

3.5.1 Conclusion of UoM07 Screening Results

There are a total of 36 European sites (24 SACs and 12 SPAs) which are within the identified search area for screening the upcoming UoM07 FRMP and thus with the potential to be impacted by the Eastern CFRAM Study.

A total of 31 European sites including 22 SACs and nine SPAs were found to have no identifiable impact pathway arising from the implementation of FRM methods within the AFA catchments in this UoM. These have therefore been screened out as not requiring any further assessment.

Five European sites (two SACs and three SPAs) were assessed as having the potential to experience an impact from the implementation of FRM methods in the catchments of ten of the AFAs in UoM07 - see Table 3.5. Stage 2 Appropriate Assessment is required to assess the significance of these impacts.

Table 3.5: UoM07 AFAs requiring further Assessment (Appropriate Assessment) at FRMP stage

AFA with Identifiable Impact Pathway to European Site	European Site	Site Code
Athboy	River Boyne And River Blackwater SAC	002299
	River Boyne and River Blackwater SPA	004232
	Boyne Coast And Estuary SAC	001957
	Boyne Estuary SPA	004080
Ballivor	River Boyne And River Blackwater SAC	002299
	River Boyne and River Blackwater SPA	004232
	Boyne Coast And Estuary SAC	001957
	Boyne Estuary SPA	004080
Baltray	Boyne Coast And Estuary SAC	001957
	Boyne Estuary SPA	004080
	River Boyne And River Blackwater SAC	002299
	River Nanny Estuary and Shore SPA	004158
Drogheda	Boyne Coast And Estuary SAC	001957
	Boyne Estuary SPA	004080
	River Boyne And River Blackwater SAC	002299
	River Boyne and River Blackwater SPA	004232
	River Nanny Estuary and Shore SPA	004158
Edenderry & Environs	River Boyne And River Blackwater SAC	002299
	River Boyne and River Blackwater SPA	004232
	Boyne Coast And Estuary SAC	001957
	Boyne Estuary SPA	004080

AFA with Identifiable Impact Pathway to European Site	European Site	Site Code
Johnstown Bridge	River Boyne And River Blackwater SAC River Boyne and River Blackwater SPA Boyne Coast And Estuary SAC Boyne Estuary SPA	002299 004232 001957 004080
Longwood	River Boyne And River Blackwater SAC River Boyne and River Blackwater SPA Boyne Coast And Estuary SAC Boyne Estuary SPA	002299 004232 001957 004080
Mornington	Boyne Coast And Estuary SAC Boyne Estuary SPA River Boyne And River Blackwater SAC River Nanny Estuary and Shore SPA	001957 004080 002299 004158
Navan	River Boyne And River Blackwater SAC River Boyne and River Blackwater SPA Boyne Coast And Estuary SAC Boyne Estuary SPA	002299 004232 001957 004080
Trim	River Boyne And River Blackwater SAC River Boyne and River Blackwater SPA Boyne Coast And Estuary SAC Boyne Estuary SPA	002299 004232 001957 004080

3.6 SCREENING RESULTS FOR UOM09

There were 43 European sites (28 SACs and 15 SPAs) found within the Screening Search Area of UoM09 (see Figure 3.6).

All European sites in the search area were screened for possible impacts from all FRM methods at all AFAs in UoM09. The results of the screening exercise are summarised in Table 3.6 and Table 3.7.

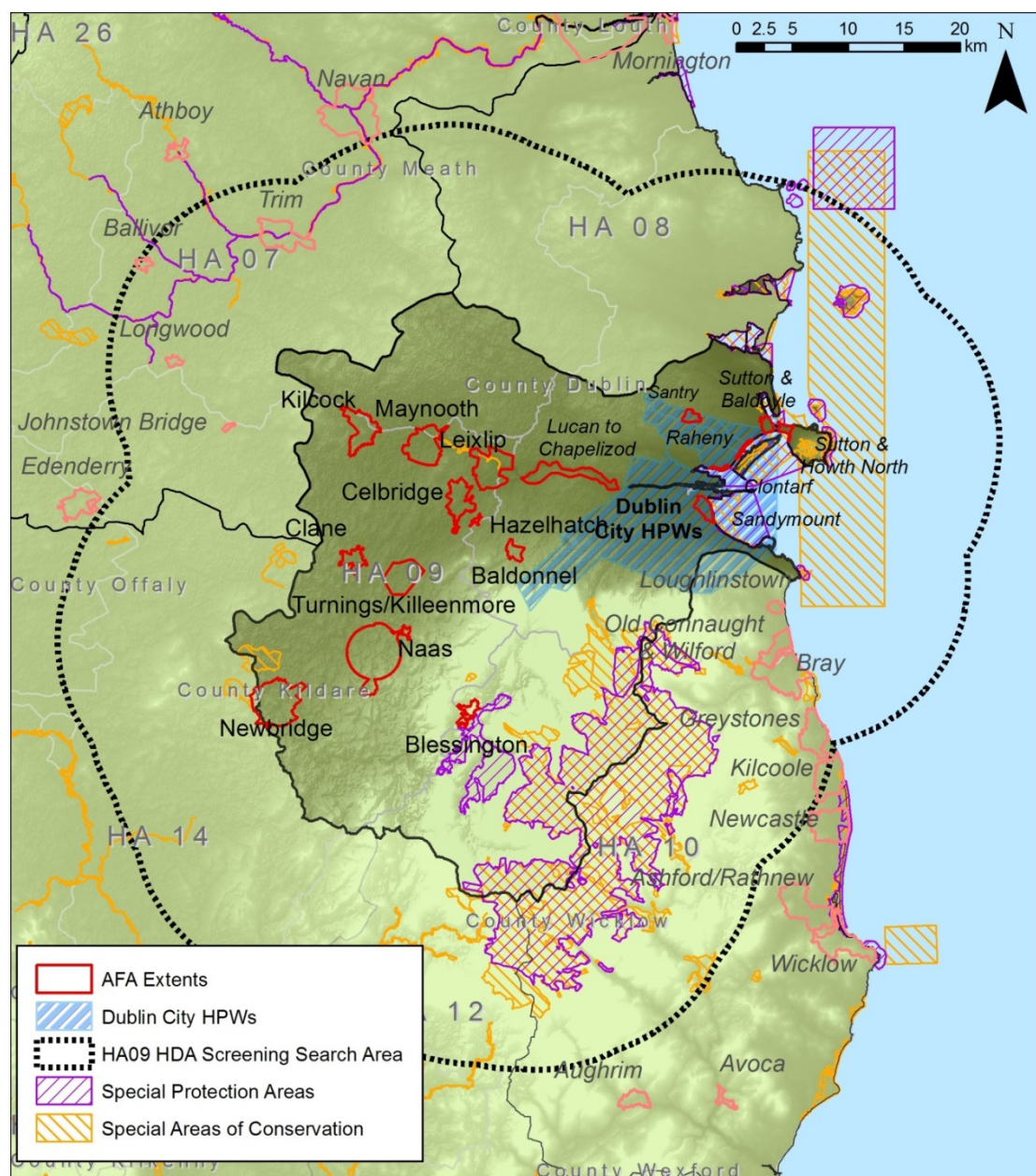


Figure 3.6: UoM09 European Sites subjected to Screening

Table 3.6: European Sites Screened for UoM09

	Site Name	Site Code	County	UoM	Water Dependent	AFA's within Zone of potential Influence of European Site	AFA's that have an Identifiable Impact Pathway to European Site	Screened Out of UoM09 FRMP?
1	Baldoyle Bay SAC	000199	Dublin	9	Yes	Clontarf (5.5km), Dublin City HPWs (0.0), Lucan to Chapelizod (14.2km), Raheny (2.3km), Sandymount (9.0km), Santry (5.1km), Sutton & Baldoyle (0.0km), Sutton & Howth North (0.0km)	Dublin City HPWs, Sutton & Baldoyle, Sutton & Howth North	No
2	Baldoyle Bay SPA	004016	Dublin	9	Yes	Clontarf (5.5km), Dublin City HPWs (0.0), Lucan to Chapelizod (14.6km), Raheny (2.3km), Sandymount (9.0km), Santry (5.4km), Sutton & Baldoyle (0.0km), Sutton & Howth North (0.0km)	Dublin City HPWs, Sutton & Baldoyle, Sutton & Howth North	No
3	Ballyman Glen SAC	000713	Dublin, Wicklow	10	Yes	Dublin City HPWs (6.5km), Sandymount (12.3km) <i>[in UoM10: Bray (0.0km), Greystones (5.5km), Kilcoole (10.0km), Loughlinstown (4.5km), Newcastle (13.7km), Old Connaught & Wilford (0.0km)]</i>	None	Yes
4	Ballynafagh Bog SAC	000391	Kildare	Outside ECFRAM area	Yes	Celbridge (14.2km), Clane (3.8km), Hazelhatch (15.8km), Kilcock (10.1km), Maynooth (13.3km), Naas (8.2km), Newbridge (9.9km), Turnings/Killeenmore (7.9km) <i>[in UoM07 Johnstown Bridge (11.9km)]</i>	None	Yes

	Site Name	Site Code	County	UoM	Water Dependent	AfAs within Zone of potential Influence of European Site	AfAs that have an Identifiable Impact Pathway to European Site	Screened Out of UoM09 FRMP?
5	Ballynafagh Lake SAC	001387	Kildare	Outside ECFRAM area	Yes	Edenderry (15.8km), Johnstown Bridge (11.1km) <i>[in UoM10 Celbridge (14.9km), Clane (5.0km), Kilcock (9.8km), Maynooth (13.4km), Naas (7.5km), Newbridge (8.1km), Turnings/Killeenmore (8.9km)]</i>	None	Yes
6	Boyne Coast And Estuary SAC	001957	Louth, Meath	07, 08	Yes	None from UoM09 <i>(screening summary located under UoM07 in Appendix B)</i>	None	Yes
7	Boyne Estuary SPA	004080	Louth, Meath	07,08	-	None from UoM09 <i>(screening summary located under UoM07 in Appendix B)</i>	None	Yes
8	Bray Head SAC	000714	Wicklow	10	Yes	Dublin City HPWs (10.2km), Sandymount (15.3km) <i>[in UoM10: Ashford/Rathnew (14.8km), Bray (0.0km), Greystones (0.0km), Kilcoole (3.6km), Loughlinstown (5.5km), Newcastle (8.3km), Old Connaught & Wilford (2.1km)]</i>	None	Yes
9	Broadmeadow/Swords Estuary SPA	004025	Dublin	9,10	Yes	Clontarf (9.6km), Dublin City HPWs (4.4km), Lucan to Chapelizod (15.2km), Raheny (6.7km), Sandymount (13.1km), Santry (6.3km), Sutton & Baldoyle (4.4km), Sutton & Howth North (5.0km)	None	Yes

	Site Name	Site Code	County	UoM	Water Dependent	AFAs within Zone of potential Influence of European Site	AFAs that have an Identifiable Impact Pathway to European Site	Screened Out of UoM09 FRMP?
10	Carriggower Bog SAC	000716	Wicklow	10	Yes	None from UoM09 <i>(screening summary located under UoM10 in Appendix B)</i>	None	Yes
11	Dalkey Islands SPA	004172	Dublin	OffShore	-	Clontarf (10.7km), Dublin City HPWs (2.4km), Raheny (11.0km), Sandymount (8.4km), Santry (15.5km), Sutton & Baldoyle (12.2km), Sutton & Howth North (11.1km) <i>[in UoM10: Bray (6.5km), Greystones (11.4km), Kilcoole (15.6km), Loughlinstown (2.8km), Old Connaught & Wilford (4.5km)]</i>	Dublin City HPWs, Sandymount	No
12	Glen of The Downs SAC	000719	Wicklow	10	Yes	None from UoM09 <i>(screening summary located under UoM10 in Appendix B)</i>	None	Yes
13	Glenasmole Valley SAC	001209	Dublin	9	Yes	Baldonnel (7.0km), Blessington (12.6km), Celbridge (13.0km), Dublin City HPWs (2.1km), Hazelhatch (12.0km), Leixlip (12.9km), Lucan to Chapelizod (9.7km), Sandymount (12.0km), Turnings/Killeenmore (14.8km), <i>[in UoM10: Bray (13.2km), Loughlinstown (14.4km), Old Connaught & Wilford (13.6km)]</i>	None	Yes

	Site Name	Site Code	County	UoM	Water Dependent	AFA's within Zone of potential Influence of European Site	AFA's that have an Identifiable Impact Pathway to European Site	Screened Out of UoM09 FRMP?
14	Howth Head Coast SPA	004113	Dublin	9	Yes	Clontarf (8.5km), Dublin City HPWs (2.6km), Raheny (6.2km), Sandymount (10.9km), Santry (10.9km), Sutton & Baldoyle (4.4km), Sutton & Howth North (2.6km) <i>[in UoM10: Loughlinstown (12.8km), Old Connaught & Wilford (14.8km)]</i>	Dublin City HPWs	No
15	Howth Head SAC	000202	Dublin	09	Yes	Clontarf (5.8km), Dublin City HPWs (0.8km), Lucan to Chapelizod (15.9km), Raheny (3.6km), Sandymount (8.6km), Santry (8.5km), Sutton & Baldoyle (2.4km), Sutton & Howth North (0.8km). <i>[In UoM10: Loughlinstown (12.3km), Old Connaught & Wilford (14.6km)]</i>	Dublin City HPWs	No
16	Ireland's Eye SAC	002193	Dublin	OffShore	Yes	Clontarf (9.0km), Dublin City HPWs (2.1km), Raheny (6.0km), Sandymount (12.3km), Santry (9.9km), Sutton & Baldoyle (3.7km), Sutton & Howth North (2.1km)	None	Yes
17	Ireland's Eye SPA	004117	Dublin	OffShore	Yes	Clontarf (8.8km), Dublin City HPWs (1.9km), Raheny (5.8km), Sandymount (12.1km), Santry (9.7km), Sutton & Baldoyle (3.5km), Sutton & Howth North (1.9km)	None	Yes

	Site Name	Site Code	County	UoM	Water Dependent	AfAs within Zone of potential Influence of European Site	AfAs that have an Identifiable Impact Pathway to European Site	Screened Out of UoM09 FRMP?
18	Knocksink Wood SAC	000725	Dublin, Wicklow	10	Yes	Dublin City HPWs (5.3km), Sandymount (11.6km) <i>[in UoM10: Bray (0.7km), Greystones (6.5km), Kilcoole (10.4km), Loughlinstown (5.6km), Newcastle (13.7km), Old Connaught & Wilford (1.7km)]</i>	None	Yes
19	Lambay Island SAC	000204	Dublin	Offshore	Yes	Dublin City HPWs (10.9km), Raheny (13.8km), Santry (15.5km), Sutton & Baldoyle (11.4km), Sutton & Howth North (10.9km)	None	Yes
20	Lambay Island SPA	004069	Dublin	Offshore	Yes	Dublin City HPWs (10.7km), Raheny (13.6km), Santry (15.5km), Sutton & Baldoyle (11.2km), Sutton & Howth North (10.7km)	None	Yes
21	Malahide Estuary SAC	000205	Dublin	09	Yes	Clontarf (8.9km), Dublin City HPWs (3.6km), Lucan to Chapelizod (15.2km), Raheny (6.0km), Sandymount (12.4km), Santry (6.3km), Sutton & Baldoyle (3.6km), Sutton & Howth North (4.2km)	None	Yes
22	Mouds Bog SAC	002331	Kildare	09	Yes	Clane (9.4km), Naas (5.9km), Newbridge (0.7km), Turnings/Killeenmore (11.3km)	None	Yes

	Site Name	Site Code	County	UoM	Water Dependent	AFAs within Zone of potential Influence of European Site	AFAs that have an Identifiable Impact Pathway to European Site	Screened Out of UoM09 FRMP?
23	North Bull Island SPA	004006	Dublin	09	Yes	Baldonnel (19.7km), Celbridge (23.0km), Clane (32.7km), Clontarf (0.0km), Dublin City HPWs (0.0km), Hazelhatch (22.6km), Kilcock (31.2km), Leixlip (19.3km), Lucan to Chapelizod (10.1km), Maynooth (25.km), Naas (30.8km), Newbridge (41.4km), Raheny (0.0km), Sandymount (3.5km), Santry (4.5km), Sutton & Baldoyle (0.0km), Sutton & Howth North (0.0km), Turnings/Killeenmore (27.9km) <i>[in UoM10: Bray (15.1km), Loughlinstown (10.5km), Old Connaught & Wilford (13.0km)]</i>	Baldonnel, Celbridge Clane, Clontarf, Dublin City HPWs, Hazelhatch, Kilcock, Leixlip, Lucan to Chapelizod, Maynooth, Naas, Newbridge, Raheny, Sandymount, Santry, Sutton & Baldoyle, Sutton & Howth North, Turnings/Killeenmore	No
24	North Dublin Bay SAC	000206	Dublin	09	Yes	Baldonnel (19.7km), Celbridge (23.0km), Clane (32.7km), Clontarf (0.0km), Dublin City HPWs (0.0km), Hazelhatch (22.6km), Kilcock (31.2km), Leixlip (19.3km), Lucan to Chapelizod (10.1km), Maynooth (25.km), Naas (30.8km), Newbridge (41.4km), Raheny (0.0km), Sandymount (3.5km), Santry (4.5km), Sutton & Baldoyle (0.0km), Sutton & Howth North (0.0km), Turnings/Killeenmore (27.9km) <i>[in UoM10: Bray (15.1km), Loughlinstown (10.5km), Old Connaught & Wilford (13.1km)]</i>	Baldonnel, Celbridge Clane, Clontarf, Dublin City HPWs, Hazelhatch, Kilcock, Leixlip, Lucan to Chapelizod, Maynooth, Naas, Newbridge, Raheny, Sandymount, Santry, Sutton & Baldoyle, Sutton & Howth North, Turnings/Killeenmore	No

	Site Name	Site Code	County	UoM	Water Dependent	AFAs within Zone of potential Influence of European Site	AFAs that have an Identifiable Impact Pathway to European Site	Screened Out of UoM09 FRMP?
25	Pollardstown Fen SAC	000396	Kildare	Outside ECFRAM area	Yes	Clane (13.7km), Naas (9.4km), Newbridge (0.0km), Turnings/Killeenmore (15.6km)	Newbridge	No
26	Poulaphouca Reservoir SPA	004063	Kildare, Wicklow	09	Yes	Baldonnel (11.9km), Blessington (0.0km), Celbridge (14.9km), Dublin City HPWs (7.9km), Hazelhatch (15.2km), Naas (7.5km), Newbridge (13.3km), Turnings/Killeenmore (12.1km)	Blessington	No
27	Red Bog, Kildare SAC	000397	Kildare	09	Yes	Baldonnel (10.8km), Blessington (1.7km), Celbridge (12.6km), Clane (13.3km), Dublin City HPWs (7.6km), Hazelhatch (13.1km), Naas (6.1km), Newbridge (14.3km), Turnings/Killeenmore (9.1km)	None	Yes
28	River Barrow And River Nore SAC	002162	Kildare	Outside ECFRAM area	Yes	Newbridge (10.0km)	None	Yes
29	River Boyne And River Blackwater SAC	002299	Meath	07	Yes	Kilcock (13.3km) (screening summary located under UoM07 in Appendix B)	None	Yes
30	River Boyne and River Blackwater SPA	004232	Meath	07	-	Kilcock (15.1km) (screening summary located under UoM07 in Appendix B)	None	Yes
31	Rockabill SPA	004014	Dublin	Offshore	-	Mornington (14.8km)	None	Yes

	Site Name	Site Code	County	UoM	Water Dependent	AFAs within Zone of potential Influence of European Site	AFAs that have an Identifiable Impact Pathway to European Site	Screened Out of UoM09 FRMP?
32	Rockabill to Dalkey Island SAC	003000	Dublin	Offshore / 09	-	Clontarf (6.2km), Dublin City HPWs (1.8km), Mornington (15.6km), , Raheny (4.4km), Sandymount (7.6km), Santry (9.3km), Sutton & Baldoyle (3.3km), Sutton & Howth North (1.8km) <i>[in UoM10: Bray (4.1km), Greystones (9.1km), Kilcoole (13.0km), Loughlinstown (1.5km) and Old Connaught & Wilford (2.3km)]</i>	None	Yes
33	Rogerstown Estuary SAC	000208	Dublin	08	Yes	Clontarf (14.9km), Dublin City HPWs (10.3km), Raheny (12.7km), Santry (10.4km), Sutton & Baldoyle (10.3km), Sutton & Howth North (10.8km)	None	Yes
34	Rogerstown Estuary SPA	004015	Dublin	08	Yes	Clontarf (15.1km), Dublin City HPWs (10.4km), Raheny (12.4km), Santry (10.7km), Sutton & Baldoyle (10.0km), Sutton & Howth North (10.4km)	None	Yes
35	Rye Water Valley/Carlton SAC	001398	Kildare, Meath	09	Yes	Baldonnel (6.3km), Celbridge (2.2km), Clane (11.7km), Dublin City HPWs (10.9km), Hazelhatch (4.3km), Kilcock (4.9km), Leixlip (0.0km), Lucan to Chapelizod (2.0km), Maynooth (0.0km), Turnings/Killeenmore (10.4km)	Kilcock, Leixlip, Lucan to Chapelizod, Maynooth	No
36	Skerries Islands SPA	004122	Dublin	Offshore	Yes	None	None	Yes

	Site Name	Site Code	County	UoM	Water Dependent	AFAs within Zone of potential Influence of European Site	AFAs that have an Identifiable Impact Pathway to European Site	Screened Out of UoM09 FRMP?
37	Slaney River Valley SAC	000781	Carlow, Wicklow	Outside ECFRAM area	Yes	None from UoM09 (screening summary located under UoM10 in Appendix B)	None	Yes
38	South Dublin Bay and River Tolka Estuary SPA	004024	Dublin	09	-	Baldonnel (16.7km), Celbridge(19.8km), Clontarf (0.0km), Dublin City HPWs (0.0km), Hazelhatch (19.5km), Leixlip (16.2km), Lucan to Chapelizod (7.0km), Maynooth(22.3km), Raheny (0.9km), Sandymount (0.0km), Santry (3.9km), Sutton & Baldoyle (4.3km), Sutton & Howth North (5.0km) <i>[In UoM10: Bray (9.7km), Greystones (15.1km), Loughlinstown (5.1km), Old Connaught & Wilford (7.8km)]</i>	Baldonnel, Celbridge, Clane, Clontarf, Dublin City HPWs, Hazelhatch, Kilcock, Lucan to Chapelizod, Leixlip, Maynooth, Naas, Newbridge, Raheny, Sandymount, Santry, Sutton & Baldoyle, Sutton & Howth North, Turnings/Killeenmore	No
39	South Dublin Bay SAC	000210	Dublin	9	Yes	Baldonnel (16.8km), Celbridge (20.7km), Clontarf (2.0km), Dublin City HPWs (0.0km), Hazelhatch (20.2km), Leixlip (17.5km), Lucan to Chapelizod (8.0km), Maynooth (24.0km), Raheny (2.9km), Sandymount (0.0km), Santry (6.8km), Sutton & Baldoyle (5.5km), Sutton & Howth North (6.1km) <i>[In UoM10: Bray (9.8km), Greystones (15.2km), Loughlinstown (5.2km), Old Connaught & Wilford (7.9km)]</i>	Baldonnel, Celbridge, Clane, Clontarf, Dublin City HPWs, Hazelhatch, Kilcock, Lucan to Chapelizod, Leixlip, Maynooth, Naas, Newbridge, Raheny, Sandymount, Santry, Sutton & Baldoyle, Sutton & Howth North, Turnings/Killeenmore	No
40	The Long Derries, Edenderry SAC	000925	Offaly	Outside ECFRAM area	Yes	None from UoM09 (screening summary located under UoM10 in Appendix B)	None	Yes

	Site Name	Site Code	County	UoM	Water Dependent	AFA's within Zone of potential Influence of European Site	AFA's that have an Identifiable Impact Pathway to European Site	Screened Out of UoM09 FRMP?
41	Vale of Clara (Rathdrum Wood) SAC	000733	Wicklow	10	Yes	None from UoM09 <i>(screening summary located under UoM10 in Appendix B)</i>	None	Yes
42	Wicklow Mountains SAC	002122	Wicklow	9, 10	Yes	Baldonnel (8.1km), Blessington (2.5km), Celbridge (14.2km), Clontarf (14.4km), Dublin City HPWs (3.5km), Hazelhatch (13.1km), Leixlip (14.6km), Lucan to Chapelizod (12.1km), Naas (10.8km), Sandymount (10.1km), Turnings/Killeenmore (14.5km) <i>[In UoM10: Ashford/Rathnew (8.3km), Aughrim (10.1km), Avoca (13.8km), Bray (4.1km), Greystones (7.4km), Kilcoole (8.8km), Loughlinstown (7.8km), Newcastle (9.6km), Old Connaught & Wilford (4.9km), Wicklow (12.4km)]</i>	None	Yes
43	Wicklow Mountains SPA	004040	Dublin, Wicklow	9,10,12	Yes	Baldonnel (11.6km), Blessington (5.5km), Clontarf (14.7km), Dublin City HPWs (3.5km), Lucan to Chapelizod (12.1km), Naas (13.6km), Sandymount (10.3km) <i>[In UoM10: Ashford/Rathnew (10.3km), Aughrim (10.1km), Avoca (13.8km), Bray (4.6km), Greystones (7.1km), Kilcoole (8.8km), Loughlinstown (7.9km), Newcastle (9.6km), Old Connaught & Wilford (5.4km), Wicklow (14.0km)]</i>	None	Yes

3.6.1 Conclusion of UoM09 Screening Results

There are a total of 43 European sites (28 SACs and 15 SPAs) which are within the identified search area for screening the upcoming UoM09 FRMP and thus with the potential to be impacted by the Eastern CFRAM Study.

A total of 31 European sites including 22 SACs and nine SPAs were found to have no identifiable impact pathway arising from the implementation of FRM methods within the AFA catchments in this UoM. These have therefore been screened out as not requiring any further assessment.

There were 12 individual European sites (six SACs and six SPAs) assessed as having the potential to experience impacts from the implementation of FRM methods in the catchments of 19 of the AFAs in UoM09 - see Table 3.7. Stage 2 Appropriate Assessment is required to assess the significance of these impacts.

Table 3.7: UoM09 AFAs requiring Further Assessment (Appropriate Assessment) at FRMP stage

AFA with Identifiable Impact Pathway to European Site	European Site	Site Code
Baldonnel	North Bull Island SPA	004006
	North Dublin Bay SAC	000206
	South Dublin Bay and River Tolka Estuary SPA	004024
	South Dublin Bay SAC	000210
Blessington	Poulaphouca Reservoir SPA	004063
Celbridge	North Bull Island SPA	004006
	North Dublin Bay SAC	000206
	South Dublin Bay and River Tolka Estuary SPA	004024
	South Dublin Bay SAC	000210
Clane	North Bull Island SPA	004006
	North Dublin Bay SAC	000206
	South Dublin Bay and River Tolka Estuary SPA	004024
	South Dublin Bay SAC	000210
Clontarf*	<i>North Bull Island SPA</i>	<i>004006</i>
	<i>North Dublin Bay SAC</i>	<i>000206</i>
	<i>South Dublin Bay and River Tolka Estuary SPA</i>	<i>004024</i>
	<i>South Dublin Bay SAC</i>	<i>000210</i>
Dublin City HPWs	Baldoyle Bay SAC	000199
	Baldoyle Bay SPA	004016
	Dalkey Islands SPA	004172
	Howth Head Coast SPA	004113
	Howth Head SAC	000202
	North Bull Island SPA	004006
	North Dublin Bay SAC	000206

	South Dublin Bay and River Tolka Estuary SPA South Dublin Bay SAC	004024 000210
Hazelhatch	North Bull Island SPA North Dublin Bay SAC South Dublin Bay and River Tolka Estuary SPA South Dublin Bay SAC	004006 000206 004024 000210
Kilcock	North Bull Island SPA North Dublin Bay SAC Rye Water Valley/Carlton SAC South Dublin Bay and River Tolka Estuary SPA South Dublin Bay SAC	004006 000206 001398 004024 000210
Leixlip	North Bull Island SPA North Dublin Bay SAC Rye Water Valley/Carlton SAC South Dublin Bay and River Tolka Estuary SPA South Dublin Bay SAC	004006 000206 001398 004024 000210
Lucan to Chapelizod	North Bull Island SPA North Dublin Bay SAC Rye Water Valley/Carlton SAC South Dublin Bay and River Tolka Estuary SPA South Dublin Bay SAC	004006 000206 001398 004024 000210
Maynooth	North Bull Island SPA North Dublin Bay SAC Rye Water Valley/Carlton SAC South Dublin Bay and River Tolka Estuary SPA South Dublin Bay SAC	004006 000206 001398 004024 000210
Naas	North Bull Island SPA North Dublin Bay SAC South Dublin Bay and River Tolka Estuary SPA South Dublin Bay SAC	004006 000206 004024 000210
Newbridge	Pollardstown Fen SAC North Bull Island SPA North Dublin Bay SAC South Dublin Bay and River Tolka Estuary SPA South Dublin Bay SAC	000396 004006 000206 004024 000210
<i>Raheny*</i>	<i>North Bull Island SPA</i> <i>North Dublin Bay SAC</i> <i>South Dublin Bay and River Tolka Estuary SPA</i> <i>South Dublin Bay SAC</i>	<i>004006</i> <i>000206</i> <i>004024</i> <i>000210</i>
<i>Sandymount*</i>	<i>Dalkey Islands SPA</i> <i>North Bull Island SPA</i> <i>North Dublin Bay SAC</i>	<i>004172</i> <i>004006</i> <i>000206</i>

	<i>South Dublin Bay and River Tolka Estuary SPA</i> <i>South Dublin Bay SAC</i>	004024 000210
Santry	North Bull Island SPA North Dublin Bay SAC South Dublin Bay and River Tolka Estuary SPA South Dublin Bay SAC	004006 000206 004024 000210
Sutton & Baldoyle	Baldoyle Bay SAC Baldoyle Bay SPA North Bull Island SPA North Dublin Bay SAC South Dublin Bay and River Tolka Estuary SPA South Dublin Bay SAC	000199 004016 004006 000206 004024 000210
Sutton & Howth North	Baldoyle Bay SAC Baldoyle Bay SPA North Bull Island SPA North Dublin Bay SAC South Dublin Bay and River Tolka Estuary SPA South Dublin Bay SAC	000199 004016 004006 000206 004024 000210
Turnings/Killeenmore	North Bull Island SPA North Dublin Bay SAC South Dublin Bay and River Tolka Estuary SPA South Dublin Bay SAC	004006 000206 004024 000210

** denotes coastal sub-area of Dublin City AFA*

3.7 SCREENING RESULTS FOR UOM10

There were 33 European sites (23 SACs and 10 SPAs) found within the Screening Search Area of UoM10 (see Figure 3.7).

All European sites in the search area were screened for possible impacts from all FRM methods at all AFAs in UoM10. The results of the screening exercise are summarised in Table 3.8 and Table 3.9.

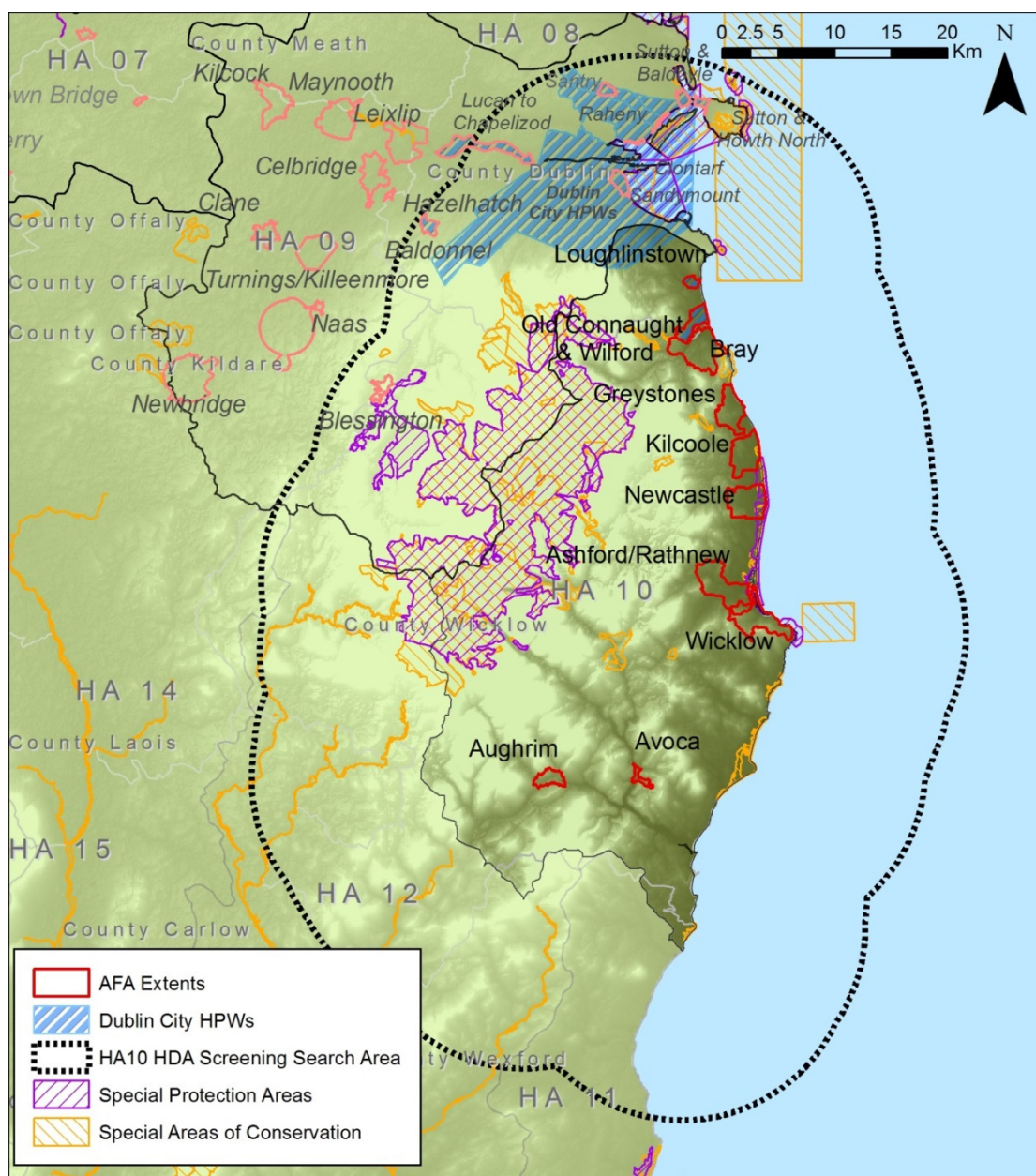


Figure 3.7: UoM10 European Sites subjected to Screening

Table 3.8: European Sites screened for UoM10

	Site Name	Site Code	County	UoM	Water Dependent	AFA's within Zone of potential Influence of European Site	AFA's that have an Identifiable Impact Pathway to European Site	Screened Out of UoM10 FRMP?
1	Baldoyle Bay SAC	000199	Dublin	9	Yes	None from UoM10 (screening summary located under UoM09 in Appendix B)	None	Yes
2	Baldoyle Bay SPA	004016	Dublin	9	Yes	None from UoM10 (screening summary located under UoM09 in Appendix B)	None	Yes
3	Ballyman Glen SAC	000713	Dublin/ Wicklow	10	Yes	Bray (0.0km), Greystones (5.5km), Kilcoole (10.0km), Loughlinstown (4.6km), Newcastle (13.7km), Old Connaught & Wilford (0.0km) , [in UoM09: Sandymount (12.3km)]	Bray, Old Connaught & Wilford	No
4	Bray Head SAC	000714	Wicklow	10	Yes	Ashford/Rathnew (14.8km), Bray (0.0km), Greystones (0.0km), Kilcoole (3.6km), Loughlinstown (5.5km), Newcastle (8.3km), Old Connaught & Wilford (2.1km) [in UoM09: Dublin City HPWs (10.2km)]	Bray, Greystones	No
5	Buckroney-Brittias Dunes and Fen SAC	000729	Wicklow	10	Yes	Ashford/Rathnew (10.1km), Aughrim (13.5km), Avoca (5.8km), Wicklow (6.8km)	None	Yes
6	Carriggower Bog SAC	000716	Wicklow	10	Yes	Ashford/Rathnew (9.0km), Bray (8.0km), Greystones (5.0km), Kilcoole (5.0km), Loughlinstown (15.0km), Newcastle (5.3km) , Old Connaught & Wilford (10.0km), Wicklow (13.0km)	None	Yes

	Site Name	Site Code	County	UoM	Water Dependent	AFAs within Zone of potential Influence of European Site	AFAs that have an Identifiable Impact Pathway to European Site	Screened Out of UoM10 FRMP?
7	Dalkey Islands SPA	004172	Dublin	9	Yes	Bray (6.5km), Greystones (11.4km), Kilcoole (15.6km), Loughlinstown (2.8km), Old Connaught & Wilford (4.5km) <i>[In UoM09: Clontarf (10.7km), Dublin City HPWs (2.4km), Raheny (11.0km), Sandymount (8.4km), Santry (15.5km), Sutton & Baldoyle (12.2km), Sutton & Howth North (11.1km)]</i>	None	Yes
8	Deputy's Pass Nature Reserve SAC	000717	Wicklow	10	Yes	Ashford/Rathnew (5.5km), Aughrim (13.9km), Avoca (9.9km), Newcastle (12.6km), Wicklow (5.3km)	None	Yes
9	Glen of the Downs SAC	000719	Wicklow	10	Yes	Ashford/Rathnew (11.3km), Bray (3.5km), Greystones (0.5km), Kilcoole (2.0km), Loughlinstown (11.0km), Newcastle (5.2km), Old Connaught & Wilford (6.2km), Wicklow (14.2km) <i>[in UoM09: Dublin City HPWs (14.3km)]</i>	Greystones	No
10	Glenasmole Valley SAC	001209	Dublin	9	Yes	Bray (13.2km), Loughlinstown (14.4km) and Old Connaught & Wilford (13.6km) <i>[in UoM09: Baldonnel (7.0km), Blessington (12.6km), Celbridge (13.0km), Dublin City HPWs (2.1km), Hazelhatch (12.0km), Leixlip (12.9km), Lucan to Chapelizod (9.7km), Sandymount (12.0km), Turnings/Killeenmore (14.8km)]</i>	None	Yes
11	Holdenstown Bog SAC	1757	Wicklow	Outside ECFRAM area	Yes	None	None	Yes

	Site Name	Site Code	County	UoM	Water Dependent	AFAs within Zone of potential Influence of European Site	AFAs that have an Identifiable Impact Pathway to European Site	Screened Out of UoM10 FRMP?
12	Howth Head Coast SPA	004113	Dublin	9	Yes	Loughlinstown (12.8km) and Old Connaught & Wilford (14.8km) [in UoM09: Clontarf (8.5km), Dublin City HPWs (2.6km), Raheny (6.2km), Sandymount (10.9km), Santry (10.9km), Sutton & Baldoyle (4.4km) Sutton & Howth North (2.6km)]	None	Yes
13	Howth Head SAC	000202	Dublin	9	Yes	Loughlinstown (12.3km), Old Connaught & Wilford (14.6km) [In UoM09: Clontarf (5.8km), Dublin City HPWs (0.8km), Lucan to Chapelizod (15.9km), Raheny (3.6km), Sandymount (8.6km), Santry (8.5km), Sutton & Baldoyle (2.4km), Sutton & Howth North (0.8km)]	None	Yes
14	Ireland's Eye SAC	002193	Dublin	9	Yes	None from UoM10 (screening summary located under UoM09 in Appendix B)	None	Yes
15	Ireland's Eye SPA	004117	Dublin	9	Yes	None from UoM10 (screening summary located under UoM09 in Appendix B)	None	Yes
16	Kilpatrick Sandhills SAC	001742	Wexford	10	Yes	Avoca (12.5km)	None	Yes
17	Knocksink Wood SAC	000725	Dublin / Wicklow	10	Yes	Bray (0.7km), Greystones (6.5km), Kilcoole (10.4km), Loughlinstown (5.6km), Newcastle (13.7km), Old Connaught & Wilford (1.7km) [in UoM09: Dublin City HPWs (5.3km), Sandymount (11.6km)]	Bray	No
18	Magherabeg Dunes SAC	001766	Wicklow	10	Yes	Ashford/Rathnew (6.7km), Avoca (12.7km), Newcastle (13.8km), Wicklow (3.0km)	None	Yes

	Site Name	Site Code	County	UoM	Water Dependent	AFAs within Zone of potential Influence of European Site	AFAs that have an Identifiable Impact Pathway to European Site	Screened Out of UoM10 FRMP?
19	North Bull Island SPA	004006	Dublin	9	Yes	Bray (15.1km), Loughlinstown (10.5km) and Old Connaught & Wilford (13.0km) [In UoM09: Baldonnel (19.7km), Celbridge (23.0km), Clane (32.7km), Clontarf (0.0km), Dublin City HPWs (0.0km), Hazelhatch (22.6km), Kilcock (31.2km), Leixlip (19.3km), Lucan to Chapelizod (10.1km), Maynooth (25.km), Naas (30.8km), Newbridge (41.4km), Raheny (0.0km), Sandymount (3.5km), Santry (4.5km), Sutton & Baldoyle (0.0km), Sutton & Howth North (0.0km), Turnings/Killeenmore (27.9km)]	None	Yes
20	North Dublin Bay SAC	000206	Dublin	9	Yes	Bray (15.1km), Loughlinstown (10.5km) and Old Connaught & Wilford (13.1km) [In UoM09: Baldonnel (19.7km), Celbridge (23.0km), Clane (32.7km), Clontarf (0.0km), Dublin City HPWs (0.0km), Hazelhatch (22.6km), Kilcock (31.2km), Leixlip (19.3km), Lucan to Chapelizod (10.1km), Maynooth (25.km), Naas (30.8km), Newbridge (41.4km), Raheny (0.0km), Sandymount (3.5km), Santry (4.5km), Sutton & Baldoyle (0.0km), Sutton & Howth North (0.0km), Turnings/Killeenmore (27.9km)]	None	Yes
21	Poulaphouca Reservoir SPA	004063	Kildare/ Wicklow	9	Yes	None from UoM10 (screening summary located under UoM09 in Appendix B)	None	Yes

	Site Name	Site Code	County	UoM	Water Dependent	AFAs within Zone of potential Influence of European Site	AFAs that have an Identifiable Impact Pathway to European Site	Screened Out of UoM10 FRMP?
22	Red Bog, Kildare SAC	000397	Kildare	9	Yes	None from UoM10 <i>(screening summary located under UoM09 in Appendix B)</i>	None	Yes
23	Rockabill to Dalkey Island SAC	003000	Dublin	0	Yes	Bray (4.1km), Greystones (9.1km), Kilcoole (13.0km), Loughlinstown (1.5km) and Old Connaught & Wilford (2.3km) <i>[In UoM09: Clontarf (6.2km), Raheny (4.4km), Sandymount (7.6km), Santry (9.3km), Sutton & Baldoyle (3.3km) and Sutton & Howth North (1.8km)]</i>	None	Yes
24	Slaney River Valley SAC	000781	Carlow/ Wicklow/ Wexford	12	Yes	Aughrim (9.3km), Avoca (13.8km)	None	Yes
25	South Dublin Bay and River Tolka Estuary SPA	004024	Dublin	9	Yes	Bray (9.7km), Greystones (15.1km), Loughlinstown (5.1km), Old Connaught & Wilford (7.8km) <i>[In UoM09: Baldonnel (16.7km), Celbridge(19.8km), Clontarf (0.0km), Dublin City HPWs (0.0km), Hazelhatch (19.5km), Leixlip (16.2km), Lucan to Chapelizod (7.0km), Maynooth(22.3km), Raheny (0.9km), Sandymount (0.0km), Santry (3.9km), Sutton & Baldoyle (4.3km), Sutton & Howth North (5.0km)]</i>	None	Yes

	Site Name	Site Code	County	UoM	Water Dependent	AFAs within Zone of potential Influence of European Site	AFAs that have an Identifiable Impact Pathway to European Site	Screened Out of UoM10 FRMP?
26	South Dublin Bay SAC	000210	Dublin	9	Yes	Bray (9.8km), Greystones (15.2km), Loughlinstown (5.2km), Old Connaught & Wilford (7.9km) <i>[In UoM09 Baldonnel (16.8km), Celbridge (20.7km), Clontarf (2.0km), Dublin City HPWs (0.0km), Hazelhatch (20.2km), Leixlip (17.5km), Lucan to Chapelizod (8.0km), Maynooth (24.0km), Raheny (2.9km), Sandymount (0.0km), Santry (6.8km), Sutton & Baldoyle (5.5km), Sutton & Howth North (6.1km)]</i>	None	Yes
27	The Murrough SPA	004186	Wicklow	10	Yes	Ashford/Rathnew (0.0km), Bray (8.4km), Greystones (2.5km), Kilcoole (0.0km), Newcastle (0.0km), Old Connaught & Wilford (12.0km) , Wicklow (0.0km)	Ashford/Rathnew, Greystones, Kilcoole, Newcastle, Wicklow	No
28	The Murrough Wetlands SAC	002249	Wicklow	10	Yes	Ashford/Rathnew (0.0km), Bray (7.4km), Greystones (1.6km), Kilcoole (0.0km), Loughlinstown (15.1km), Newcastle (0.0km) , Old Connaught & Wilford (11.0km), Wicklow (0.0km)	Ashford/Rathnew, Greystones, Kilcoole, Newcastle, Wicklow	No
29	Vale of Clara (Rathdrum Wood) SAC	000733	Wicklow	10	Yes	Ashford/Rathnew (7.2km), Aughrim (9.9km), Avoca (8.3km), Newcastle (13.4km), Wicklow (8.6km)	None	Yes
30	Wicklow Head SPA	004127	Wicklow	10	Yes	Ashford/Rathnew (2.9km), Kilcoole (13.1km), Newcastle (9.0km), Wicklow (0.0km)	Wicklow	No

	Site Name	Site Code	County	UoM	Water Dependent	AFAs within Zone of potential Influence of European Site	AFAs that have an Identifiable Impact Pathway to European Site	Screened Out of UoM10 FRMP?
31	Wicklow Mountains SAC	002122	Dublin/ Wicklow	9,10	Yes	Ashford/Rathnew (8.3km), Aughrim (10.1km), Avoca (13.8km), Bray (4.1km), Greystones (7.4km), Kilcoole (8.8km), Loughlinstown (7.8km), Newcastle (9.6km), Old Connaught & Wilford (4.9km), Wicklow (12.4km) <i>[In UoM09: Baldonnel (8.1km), Blessington (2.5km), Celbridge (14.2km), Clontarf (14.4km), Dublin City HPWs (3.5km), Hazelhatch (13.1km), Leixlip (14.6km), Lucan to Chapelizod (12.1km), Naas (10.8km), Sandymount (10.1km), Turnings/Killeenmore (14.5km)]</i>	None	Yes
32	Wicklow Mountains SPA	004040	Dublin/ Wicklow	9,10,12	Yes	Ashford/Rathnew (10.3km), Aughrim (10.1km), Avoca (13.8km), Bray (4.6km), Greystones (7.1km), Kilcoole (8.8km), Loughlinstown (7.9km), Newcastle (9.6km), Old Connaught & Wilford (5.4km), Wicklow (14.0km) <i>[In UoM09 Baldonnel (11.6km), Blessington (5.5km), Clontarf (14.7km), Dublin City HPWs (3.7km), Lucan to Chapelizod (12.1km), Naas (13.6km), Sandymount (10.3km)]</i>	None	Yes
33	Wicklow Reef SAC	002274	Wicklow	10	Yes	Ashford/Rathnew (4.4km), Greystones (16.0km), Kilcoole (12.5km), Newcastle (8.3km), Wicklow (0.9km)	Wicklow	No

3.7.1 Conclusion of UoM10 Screening Results

There are a total of 33 European sites (23 SACs and 10 SPAs) which are within the identified search area for screening the upcoming UoM10 FRMP and thus with the potential to be impacted by the Eastern CFRAM Study.

A total of 25 European sites including 17 SACs and 8 SPAs were found to have no identifiable impact pathway arising from the implementation of FRM methods within the AFA catchments in this UoM. These have therefore been screened out as not requiring any further assessment.

Eight European sites (six SACs and two SPAs - see Table 3.9) were assessed as having the potential to experience an impact from FRM methods used in the catchments of seven of the AFAs in UoM10. Stage 2 Appropriate Assessment is required to assess the significance of these impacts.

Table 3.9: UoM10 AFAs requiring Further Assessment (Appropriate Assessment) at FRMP stage

AFA with Identifiable Impact Pathway to European Site	European Site	Site Code
Ashford & Rathnew	The Murrough SPA	004186
	The Murrough Wetlands SAC	002249
Bray	Ballyman Glen SAC	000713
	Bray Head SAC	000714
	Knocksink Wood SAC	000725
Greystones	Bray Head SAC	000714
	Glen of the Downs SAC	000719
	The Murrough SPA	004186
	The Murrough Wetlands SAC	002249
Kilcoole	The Murrough SPA	004186
	The Murrough Wetlands SAC	002249
Newcastle	The Murrough SPA	004186
	The Murrough Wetlands SAC	002249
Old Connaught & Wilford	Ballyman Glen SAC	000713
Wicklow	The Murrough SPA	004186
	The Murrough Wetlands SAC	002249
	Wicklow Head SPA	004127
	Wicklow Reef SAC	002274

3.8 SCREENING CONCLUSION AND STATEMENT

The likely significant effects that may arise from the FRMPs produced in response to the Eastern CFRAM Study have been examined in the context of all factors that could potentially affect the integrity of the European sites within the plan area and beyond.

There were 78 European sites, incorporating 51 SACs and 27 SPAs, subjected to the screening exercise to determine the potential for likely significant effects arising from the Eastern CFRAM Study.

Following screening, it was concluded that 53 European sites in the Eastern CFRAM Study area were not at any risk of impacts.

As summarised in Table 3.5, Table 3.7 and Table 3.9, the implementation of FRM methods at 27 AFAs (out of a total of 39 AFAs in UoM07, UoM09 and UoM10) may result in adverse impacts to 25 separate European sites in, or surrounding, the Eastern CFRAM Study area. These are:

- | | |
|--|--|
| ▪ Boyne Coast And Estuary SAC | ▪ Poulaphouca Reservoir SPA |
| ▪ Boyne Estuary SPA | ▪ Rye Water Valley/Carton SAC |
| ▪ River Boyne And River Blackwater SAC | ▪ South Dublin Bay and River Tolka Estuary SPA |
| ▪ River Boyne and River Blackwater SPA | ▪ South Dublin Bay SAC |
| ▪ River Nanny Estuary and Shore SPA | ▪ Ballyman Glen SAC |
| ▪ Baldoyle Bay SAC | ▪ Bray Head SAC |
| ▪ Baldoyle Bay SPA | ▪ Glen of the Downs SAC |
| ▪ Dalkey Islands SPA | ▪ Knocksink Wood SAC |
| ▪ Howth Head Coast SPA | ▪ The Murrough SPA |
| ▪ Howth Head SAC | ▪ The Murrough Wetlands SAC |
| ▪ North Bull Island SPA | ▪ Wicklow Head SPA |
| ▪ North Dublin Bay SAC | ▪ Wicklow Reef SAC |
| ▪ Pollardstown Fen SAC | |

On the basis of the findings of this Screening for Appropriate Assessment, it is concluded that the FRMPs for each UoM/UoM:

- i. Are not directly connected with or necessary to the management of a European site
- ii. May have significant impacts on a European site

With the information currently available, it cannot be concluded following screening that the Eastern CFRAM Study will not have significant effects on the European sites identified, as sufficient uncertainty remains due to gaps in information. Therefore, it is recommended that AA must progress to Stage 2: Appropriate Assessment.

As the Eastern CFRAM Study progresses further this report may be updated and revised as new information becomes available.

REFERENCES

Council Directive 2001/42/EC *on the Assessment of the Effects of Certain Plans and Programmes on the Environment*

Council Directive 92/43/EEC *on the Conservation of Natural Habitats and of Wild Fauna and Flora*

Council Directive 2009/147/EC *on the Conservation of Wild Birds*

DEHLG (2009 –rev. 2010) *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities*

EC (2000) *Managing Natura 2000 sites: the provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC*

EC (2002) *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC.*

EC (2007) *Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC*

EC (2011) *Guidelines on the Implementation of the Birds and Habitats Directives in Estuaries and Coastal Zones with particular attention to port development and dredging*

EC (2013) *Guidelines on Climate Change and Natura 2000 Dealing with the impact of climate change on the management of the Natura 2000 Network of areas of high biodiversity value*

EPA (2012) *Integrated Biodiversity Impact Assessment best practice guidance; Streamlining AA, SEA and EIA Processes, Best Practice Guidance*

NPWS (2014) *The Status of EU Protected Habitats and Species in Ireland 2013 – Overview Report*

OPW (2004) *Report of the Flood Policy Review Group*

Scottish Natural Heritage (2015) *Habitats Regulation Appraisal of Plans, Guidance for Plan-Making Bodies in Scotland (version 3)*

APPENDIX A

SUMMARY OF FLOOD RISK MANAGEMENT METHODS AND THEIR HIGH LEVEL IMPACTS

APPENDIX A: TABLE OF FLOOD RISK MANAGEMENT METHODS AND THEIR HIGH LEVEL IMPACTS

FRM Method	Likely Positive Impacts (+)	Likely Negative Impacts (-)
Do Nothing No new flood risk management measures and abandon existing defences and maintenance		
<i>Do Nothing</i>	<ul style="list-style-type: none"> Unlikely to be significant positive impacts at a strategic level, however there is the potential for local improvements to habitats and biodiversity in the vicinity of previously maintained defences. 	<ul style="list-style-type: none"> Potential for significantly increased flood risk to human health, properties and infrastructure.
Existing Regime Continue existing flood risk management practices		
<i>Existing Regime</i>	<ul style="list-style-type: none"> Unlikely to be significant positive impacts at a strategic level. 	<ul style="list-style-type: none"> Potential for increased flood risk to human health, properties and infrastructure due to climate change. Existing defence works may be interfering or causing deterioration to the ecological requirements of species and habitats and the relevant conservation objectives.
Do Minimum Additional minimum measures to reduce flood risk in specific areas. Includes channel or flood defence maintenance works / programme.		
<i>Do Minimum</i>	<ul style="list-style-type: none"> Unlikely to be significant positive impacts at a strategic level. 	<ul style="list-style-type: none"> Unlikely to be significant negative impacts at a strategic level. However method is non-specific.
<i>Maintenance Programme</i>	<ul style="list-style-type: none"> Unlikely to be significant positive impacts at a strategic level. 	<ul style="list-style-type: none"> Unregulated maintenance of existing flood defence measures has the potential to result in impacts such as pollution, changes in sedimentation, disturbance, deterioration, damage and other impacts on species distribution arising from maintenance activities. It is therefore assumed that maintenance programmes already in place recognise the requirements of the 2011 Regulations and that ongoing or future planned maintenance of existing flood defence measures incorporates any necessary mitigation measures such as conducting works out of season in sensitive areas and implementing pollution prevention measures. Having regard to this is therefore considered that maintenance is unlikely to have significant negative environmental impacts

		<p>upon designated sites.</p> <ul style="list-style-type: none"> Unlikely to be significant negative impacts at a strategic level.
Planning and Development Zoning of land for flood risk appropriate development, prevention of inappropriate development, and / or review of Local Areas Plan (LAP).		
<i>Planning and Development</i>	<ul style="list-style-type: none"> Unlikely to be significant positive impacts at a strategic level, however will prevent future additional flood risk from being created. 	<ul style="list-style-type: none"> Unlikely to be significant negative impacts at a strategic level, however will prevent some developments which may curtail economic growth in certain areas.
Building Regulations Regulations on finished floor levels, flood proofing, flood resilience and SuDS.		
<i>Building Regulations</i>	<ul style="list-style-type: none"> Unlikely to be significant positive impacts at a strategic level, however will prevent future additional flood risk from being created. 	<ul style="list-style-type: none"> Unlikely to be significant negative impacts at a strategic level.
Catchment Wide Sustainable Drainage Systems (SuDS) Recommendations for future development drainage systems.		
<i>SuDS</i>	<ul style="list-style-type: none"> Slight direct positive impacts through reduction of flood risk and impacts to property and infrastructure. 	<ul style="list-style-type: none"> Likely to be temporary negative impacts through disturbance and inconvenience to the local population during construction.
Land Use Management (NFM) Runoff Control – Overland flow management through changes in land use and / or agricultural practices. River / Floodplain Restoration - Creation of wetlands, restoration of meanders, in-channel flow retardation, floodplain flow retardation and riparian buffer zones. Coastal Restoration - Attenuation waves and coastal surge through the creation and restoration of natural habitats.		
<i>Runoff Control</i>	<ul style="list-style-type: none"> Implementation of runoff control would slow down and store some potential flood waters, which will benefit the downstream population through reduction of flood risk and impacts to property and infrastructure during high frequency flood events. Done correctly in the appropriate locations, non-structural land use management has the potential to have positive environmental benefits through habitat creation, increased biodiversity and natural flood management. The creation of habitat and / or land management practices can help to 	<ul style="list-style-type: none"> If misplaced, non-structural land use management has the potential to be either ineffective or actually detrimental to the local environment, through loss or displacement of native species. Some areas of productive agricultural land may be lost. An increase in the wetness of cultivated land and semi-natural grassland ecosystems may increase the prevalence of some livestock pests.

	<p>improve attenuation of nutrients and reduce the loss of sediments, leading to improvements in water quality.</p> <ul style="list-style-type: none"> ▪ By increasing habitats such as woodland and wetland, there is potential to increase carbon storage. ▪ Enhancing and restoring wetlands may lead to benefits to habitats and species. ▪ Runoff control may enhance the productivity of cultivated land and semi natural grassland by protecting soils from erosion and loss of nutrients, and through providing a more diverse habitat for pollinators and biological control of pests and disease. ▪ Run off control in drinking water catchments may help to reduce treatment requirements for drinking water. ▪ There may be benefits to freshwater fisheries from improved water quality and reduced sedimentation. ▪ The effects on recreation, wildlife watching and landscape are generally likely to be positive, as runoff control should improve habitat diversity and biodiversity. ▪ The introduction of riparian buffer zones is unlikely to have negative impacts on habitats and species. 	
<i>River / Floodplain Restoration</i>	<ul style="list-style-type: none"> ▪ Reconnection of the river with the floodplain will enhance the natural storage capacity and provide slight direct positive social impacts through reduction of flood risk and impacts to property and infrastructure during high frequency flood events. ▪ Restoration of habitat within the river and floodplain, and reduced erosion of the river bed and banks can help to filter nutrients and reduce sediments; which can lead to improved water quality. ▪ There is the potential for improved fish habitats. ▪ Greater areas of river and floodplain wetland habitat will provide increased biodiversity. ▪ River and floodplain restoration in drinking water catchments may help to reduce treatment requirements for drinking water. ▪ The effects on recreation, wildlife watching and landscape are generally likely to be positive, with improved habitat diversity and biodiversity. 	<ul style="list-style-type: none"> ▪ There is the potential for the direct loss of agricultural land with this method. ▪ The existing ecosystems in the area for restoration will be directly impacted in the short term through a potential change of land use, habitat and hydromorphology. These impacts could be positive or negative in the long term. ▪ If parkland areas are used the land could become unsuitable for some types of recreation, temporarily during a flood event or in the medium to long term through changing the wetness of the land. ▪ There could be reduced seasonal access to riparian areas for recreational activities from floodplain re-connection. ▪ In-stream works can release fine sediments which adversely affect fish spawning gravels. ▪ There is the potential for impacts on the local landscape from this; however these could be positive or negative, depending on the finished look of

	<ul style="list-style-type: none"> With improvements to biodiversity and water quality, this method may help to improve WFD status. With wetland enhancement there may be benefits to the connectivity and health of wetland ecosystems, and there may be benefits to carbon storage. There may be local improvements in recreational fishing in the area with a more natural river course and improved water quality. 	established vegetation.
<i>Coastal Restoration</i>	<ul style="list-style-type: none"> Coastal restoration can attenuate waves and coastal surge through the creation and restoration of natural habitats, reducing the potential flood risk. Enhancement of coastal natural habitats can help to protect from coastal erosion, provide carbon storage, and help to adapt to future climate change. Restoration and creation of intertidal areas may help to provide nurseries for fish. By improving the coastal environment there is likely to be benefits to recreation, amenity and wildlife experience. 	<ul style="list-style-type: none"> Works could cause disturbance to feeding and breeding birds. Restoration and creation of intertidal areas could lead to some loss of productive land. Works could restrict or alter access to coastal areas which could cause short or long term, local negative effects. In areas of longshore drift, works in one location can have implications for sediment distribution in others. Beach re-charge could affect sediment sources for offshore sand banks.
Strategic Development Management For necessary floodplain development, with integration of structural measures into development design and zoning.		
<i>Strategic Development</i>	<ul style="list-style-type: none"> Unlikely to be significant positive impacts at a strategic level, however will reduce flood risk to human health. 	<ul style="list-style-type: none"> Unlikely to be significant negative impacts at a strategic level.
Upstream Storage Online or offline, single or multiple storage areas, with potential for embankments / engineered walls. Online storage refers to creating a dam and reservoir across the floodplain of a river, often with an outlet control structure such as an undershot culvert or sluices, to control outlet flow, and with an overflow weir and spillway. Offline storage is an area of floodplain that is embanked to prevent or control flooding within the storage area or wash-land during minor events.		
<i>Storage</i>	<ul style="list-style-type: none"> There will be slight direct positive social impacts through the regulation of flow and reduction of flood risk and impacts to property and infrastructure. Recreational access to the waterway for some activities could be improved with sensitive scheme design. Offline storage areas should ideally be located away from the existing riparian zone and can then provide environmental benefits through the creation of high biodiversity wetlands. Prolonged flooding in offline storage could increase the sediment store in the 	<ul style="list-style-type: none"> Online storage dams should not be placed in areas of high biodiversity or on migratory routes, therefore not within SACs or SPAs. However if the normal discharge volume is to be maintained they should be able to be placed upstream of an SAC or SPA. Offline storage areas should not be developed within an SAC or SPA where the designated habitat and / or species are vulnerable to flooding. This method could be further investigated within designated areas that require or are not sensitive to periodic inundation.

	<p>floodplain and reduce sediments stored in rivers, reducing downstream sedimentation and potential flood risk.</p>	<ul style="list-style-type: none"> Storage is likely to cause or exacerbate the disconnection between the river and the floodplain. There is the potential for disruption to natural processes, loss of habitat and potentially negative effects on water quality (due to loss of habitat to filter nutrients) and carbon storage. Erosion can be exacerbated upstream and / or downstream of storage areas with potentially significant negative effects. There is the potential for a reduction in pollinating services and pest and disease control due to the loss of natural habitat from direct footprint impacts. Embankment of rivers to create storage areas can result in the loss of natural riparian habitat that filters and removes nutrients from agriculture. There is the potential for long term changes to land use from direct footprint impacts. Loss of natural habitat and reduced biodiversity can impact recreational activities like angling and wildlife watching. Some storage areas may use parkland and recreational grounds which could render the land unsuitable for some types of activities, either temporarily during a flood event, or in the medium to long term through changing accessibility to the area. Changes to river flow and water levels could affect navigation channels. Prolonged flooding in offline storage could increase the sediment store in the floodplain and reduce sediments stored in rivers, disrupting the natural sediment regime. Drinking water quantity may be negatively impacted if using reservoirs for flood storage, as retaining lower water levels could affect water supply. There is likely to be temporary negative impacts through disturbance and inconvenience to the local population during construction of storage areas.
Improvement of Channel Conveyance Deepening channel, widening channel, realigning long section, removing constraints and / or lining smoothing channel.		
<i>Increase Conveyance</i>	<ul style="list-style-type: none"> There will be slight direct positive social impacts from increasing conveyance through the regulation of flow and reduction of flood risk and impacts to property and infrastructure. 	<ul style="list-style-type: none"> It may be possible to use this method within some designated areas depending on the species and habitats present. Short sections of increased channel conveyance are unlikely to have significant impacts upon species and

	<ul style="list-style-type: none"> ▪ Removal of channel constraints provides the opportunity to remove barriers to fish migration. This could improve production of salmon when combined with other river restoration actions. The design of the new structures should build in requirements for migratory fish and to diversify in-stream habitat where possible. ▪ Daylighting culverts may reduce barriers to fish barriers and improve habitats. 	<p>habitats, however over long sections of river where there may be significant in-channel losses of protected vegetation and habitat this may be unacceptable. Culverting may interfere with the hydrology of a river and its structure and function and thus may have implications for habitats where natural hydrological processes need to be maintained and/or restored. The SAC and SPA designation criteria will need to be investigated in this instance for important in-channel habitats and species.</p> <ul style="list-style-type: none"> ▪ Culverting of an entire AFA has the potential for significant negative environmental impacts within a designated site, as it replaces the natural hydrological and ecological regime with an artificial bypass. Culverting is unlikely to be an acceptable standalone method within a designated site. Culverting however should have no hydraulic impacts upstream of a designated site. ▪ Increasing conveyance modifies the storage and flow of water, causing or exacerbating disconnection between the river and the floodplain. There can be disruption to natural processes, the loss of habitat and potentially negative effects on water quality, due to loss of habitat to filter nutrients, and reduced carbon storage. ▪ There is the potential for increased downstream flood risk. ▪ Erosion can be exacerbated upstream and / or downstream of modified conveyance areas with potentially significant negative effects. ▪ There is likely to be the direct loss of habitat and displacement of species in the vicinity of works, however these may re-establish in the medium to long term. ▪ There is the potential for a reduction in pollinating services and pest and disease control due to the loss of natural habitat from direct footprint impacts. ▪ There is the potential for long term changes to land use from direct footprint impacts. ▪ Loss of natural habitat and reduced biodiversity can impact recreational activities like angling and wildlife watching. ▪ There is the potential for reduced water quality during construction from increased sediments. ▪ There may be temporary negative visual impacts during in-channel works.
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Hard Defences Fluvial flood walls or flood embankments. Rehabilitate and / or improve existing defences Tidal Barrages Coastal Flood walls		
<i>Fluvial flood walls or flood embankments</i>	<ul style="list-style-type: none"> Hard river defences can deliver benefits by regulating water flow and reducing flood risk; therefore protecting human health, properties and infrastructure. Depending on their design, some defences can improve access for some types of recreation. 	<ul style="list-style-type: none"> Hard defences can interfere with natural process, by causing some or all of the floodplain to be disconnected from the river, which can lead to the loss of natural habitat to capture, filter and recycle nutrients or pollutants. This can lead to a reduction in water quality. There is likely to be a direct loss of natural and semi-natural habitat in the direct footprint and vicinity of the defences. There may be indirect negative downstream impacts from sedimentation during construction. Erosion may also increase either side of the defences due to changes in river processes. Defences could impact negatively on river morphology and sediment dynamics, and affect WFD status and classification. Loss of natural habitat and biodiversity can reduce the quality of the environment for recreation and wildlife watching. Within the urban landscape, direct defences have potentially negative effects through disrupting the setting and view of the river and floodplain. Defences may alter the setting of heritage sites. There is the potential for downstream increased flood risk. Direct defences have the potential for negative effects on freshwater fisheries due to the loss of in river and riparian habitat and sedimentation. There may be temporary negative impacts through disturbance and inconvenience to the local population during engineering works. Flood walls and embankments are unlikely to have negative impacts upon designated sites, unless the footprint of the structure is directly on the designated feature, or if they cause a greater flood hazard downstream of the feature in a vulnerable designated area.
<i>Tidal Barriers</i>	<ul style="list-style-type: none"> Tidal barrages can deliver benefits by regulating water flow and reducing flood risk, therefore protecting human health, properties and infrastructure. 	<ul style="list-style-type: none"> Tidal barrages should ideally not be placed within a designated site, however probably all estuaries where a tidal barrage could be incorporated within Ireland are designated Natura 2000 sites. This measure has the potential to

		<p>have significant ecological impacts, particularly on migratory fish and other water dependent species.</p> <ul style="list-style-type: none"> ▪ New tidal barriers could have potentially significant negative effects on water quality (including morphology) and erosion. ▪ Tidal barriers could impede fish passage and impact on upstream protected sites.
<i>Coastal Flood walls</i>	<ul style="list-style-type: none"> ▪ Hard coastal defences can deliver benefits by regulating water flow and reducing flood risk, therefore protecting human health, properties and infrastructure. 	<ul style="list-style-type: none"> ▪ New hard coastal defences on undeveloped shoreline or tidal barriers could have potentially significant negative effects on water quality, coastal morphology and erosion. ▪ In areas of longshore drift, defences in one location can have implications for sediment distribution in other areas. ▪ Coastal defences may reduce access for recreational activities. ▪ There are potential negative visual effects on urban and coastal landscapes. ▪ There are potential negative visual effects on the seascape from artificial structures offshore or on the beach. ▪ Flood walls and embankments on coastal areas should not be on protected habitats and cannot alter coastal processes where a protected habitat requires inundation.
<i>Rehabilitation of Existing Defences</i>	<ul style="list-style-type: none"> ▪ Changes to existing defences could potentially deliver significant positive environmental effects, for example, by setting back defences from the shoreline or river. ▪ Sensitively rehabilitated defences may help to improve amenity, particularly if the shoreline is already modified. 	<ul style="list-style-type: none"> ▪ Although existing defences have an established footprint and have an established hydraulic impact, rehabilitation of existing flood defence measures has the potential to result in impacts such as pollution, changes in sedimentation, disturbance, deterioration, damage and other impacts on species distribution arising from construction or repair activities. Regard must therefore be undertaken for the planning and implementation of such activities.
Relocation Abandoning existing properties and relocating to existing or new properties outside the floodplain.		
<i>Relocation</i>	<ul style="list-style-type: none"> ▪ Reduced flood risk to human health and properties. 	<ul style="list-style-type: none"> ▪ Potential for direct, significant, long term social impacts to those required to relocate. These impacts could however be positive or negative depending on the occupant's attitude to relocating. There is the potential for indirect, significant social impacts to residents through fragmentation of neighbourhoods. There is the potential for indirect, significant social impacts

		<p>to relocated commercial properties if old customers do not frequent the new premises.</p> <ul style="list-style-type: none"> There are unlikely to be any significant impacts on the environment from the relocation of properties/infrastructure away from flood risk areas, provided the new properties / infrastructure are not relocated to environmentally sensitive areas.
Flow Diversion Diversion of Flow - Realignment of entire river, diversion channel out of river basin and/or bypass channel to return flow downstream. Overland Floodways - Using roads or linear floodways to convey flow to a determined discharge point.		
<i>Diversion of Flow</i>	<ul style="list-style-type: none"> There will be direct positive social impacts from diversion of flow through the reduction of flood risk and impacts to property and infrastructure. 	<ul style="list-style-type: none"> Flow diversion includes realigning the entire river or creating by-pass channels. They are usually implemented in the immediate vicinity of the AFA and any impacts are likely to be localised. There will however be direct negative impacts on local existing habitats in the footprint of the diversion channel. Flow diversions have the potential to interfere with the hydrology of a river and its structure and function and thus may have implications for habitats where natural hydrological processes need to be maintained and/or restored and also in habitats where flooding is an important constituent element. Full diversion of a watercourse should not be proposed within a designated site, as is likely to impact upon the designation criteria. There should be limited impact from bypass channels if the normal flow in the original channel is maintained and the bypass channel is not created in a habitat that is sensitive to flooding. Diversion of flow may just transfer the flood risk to another location.
<i>Overland Floodways</i>	<ul style="list-style-type: none"> There will be direct positive social impacts from using overland floodways through the reduction of flood risk and impacts to property and infrastructure. 	<ul style="list-style-type: none"> Overland floodways should not be proposed within designated sites where the designated habitat and / or species are vulnerable to flooding, as there is the potential for significant negative environmental impacts during a flood event. This measure may be further investigated within designated areas that require or are not sensitive to periodic inundation. Overland floodways may just transfer the flood risk to another location.
Other Works Minor raising of existing defences / levels, infilling gaps in defences, site specific localised protection works, etc.		

<i>Other Works</i>	<ul style="list-style-type: none"> Unknown 	<ul style="list-style-type: none"> Unknown
<i>Site Specific Protection Works</i>	<ul style="list-style-type: none"> Unlikely to be significant positive impacts at a strategic level. 	<ul style="list-style-type: none"> Unlikely to be significant negative impacts at a strategic level. However method is non-specific.
Flood Forecasting Monitoring rain and flows and alerting relevant recipients of flood risk likely to occur.		
<i>Flood Forecasting</i>	<ul style="list-style-type: none"> Unlikely to be significant positive impacts at a strategic level, however will reduce flood risk to human health. 	<ul style="list-style-type: none"> Unlikely to be significant negative impacts at a strategic level.
Public Awareness Make public aware of risk and advice on measures to protect themselves and properties.		
<i>Public Awareness</i>	<ul style="list-style-type: none"> Unlikely to be significant positive impacts at a strategic level, however will reduce flood risk to human health. 	<ul style="list-style-type: none"> Unlikely to be significant negative impacts at a strategic level.
Individual Property Protection Flood proofing, flood gates, capping vents and / or resilience measures.		
<i>Individual Property Protection</i>	<ul style="list-style-type: none"> Property level protection may provide positive impacts to those provided with protective equipment by giving them more peace of mind. There will be positives for the public that can protect themselves from small flood events, reducing or even eliminating damages that would otherwise cause disturbance and inconvenience. 	<ul style="list-style-type: none"> Unlikely to be significant negative impacts at a strategic level, provided property protection does not impact on protected structures or monuments and their setting.

APPENDIX B

**SCREENING OF EUROPEAN SITES WITH POTENTIAL TO BE IMPACTED BY THE
EASTERN CFRAM STUDY**

APPENDIX B: SCREENING OF EUROPEAN SITES WITH POTENTIAL TO BE IMPACTED BY THE EASTERN CFRAM STUDY

UOM07 SCREENING TABLES

Name: Ballynafagh Bog SAC		Site Code: (IE00000391)
Qualifying Interest(s)	Annex I Habitats: Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120] and Depressions on peat substrates of the Rhynchosporion [7150]	
Proximity to AFA(s) and Linkage	<p>Ballynafagh Bog SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening. There are 8 AFAs within approximately 15km of Ballynafagh Bog SAC, one of which is in UoM07 and the remainder in UoM09.</p> <p>UoM07</p> <p>Johnstown Bridge AFA is situated 11.9 km from Ballynafagh Wood SAC, but is in a separate hydrometric area and river catchment from the SAC. There is no apparent hydraulic connectivity between Johnstown Bridge AFA and Ballynafagh Wood SAC, nor is connectivity evident via an ecological stepping stone or corridor. There is no possibility of potential impacts on the qualifying interests or conservation objectives of the SAC arising from FRM methods at this AFA.</p> <p>UoM09</p> <p>7 AFAs in UoM09 are within approximately 15km of Ballynafagh Bog SAC. These are: Celbridge (14.2km), Clane (3.8km), Hazelhatch (15.8km), Kilcock (10.1km), Maynooth (13.3km), Naas (8.2km), Newbridge (9.9km) and Turnings/Killeenmore (7.9km).</p> <p>In reviewing the EPA watercourse datasets it appears that Ballynafagh Bog SAC is surrounded by a network of streams and aqueducts that straddle the boundary between catchments and hydrometric areas with no clear watershed defined. These drainage channels appear to provide connectivity between the site and the AFAs of Clane (via Butter Stream) and Turnings/Killeenmore (via the Grand Canal) and consequently downstream on the River Liffey/Grand Canal to Celbridge and Hazelhatch. However, when the site's qualifying interests and conservation objectives are taken into consideration, there is no possibility of any upstream / upcatchment FRM methods being adopted at these AFAs that would have any adverse impacts on these interests and it is concluded that no potential impact pathway exists between the AFAs and the European site.</p> <p>There is no hydraulic connectivity between Ballynafagh Bog SAC and the AFAs of Kilcock, Maynooth, Naas and Newbridge, nor any connectivity evident by virtue of a biodiversity stepping stone or corridor. It is concluded that no potential impact pathway exists between these AFAs and the European site.</p>	
Potential Impacts	<p>As there is no potential impact pathway between the qualifying interests of the Ballynafagh Bog SAC and the AFA of Johnstown Bridge in UoM07, or the AFAs of Celbridge, Clane, Hazelhatch, Kilcock, Maynooth, Naas, Newbridge and Turnings/Killeenmore in UoM09, it has been concluded that the SAC will not be impacted by any of the FRM methods proposed in the AFAs of UoM07 or UoM09 and therefore will not be impacted by the Eastern CFRAM Study. Consequently, the SAC has been removed from any further screening.</p>	

Name: Ballynafagh Lake SAC		Site Code: (IE00001387)
Qualifying Interest(s)	<p>Annex I habitat: Alkaline fens [7230]</p> <p>Annex II species <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016] and <i>Euphydryas aurinia</i> (Marsh Fritillary) [1065]</p>	

Proximity to AFA(s) and Linkage	<p>Ballynafagh Lake SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 (and UoM09) and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening. There are 9 AFAs within approximately 15km of Ballynafagh Lake SAC; two of which are in UoM07 and the remainder in UoM09.</p> <p>UoM07</p> <p>Johnstown Bridge and Edenderry AFAs are situated 11.1 km and 15.8km respectively from Ballynafagh Wood SAC. The AFAs are in a separate hydrometric area and river catchment from the SAC. There is no apparent hydraulic connectivity between Johnstown Bridge or Edenderry AFA and Ballynafagh Wood SAC, nor is connectivity evident via an ecological stepping stone or corridor. There is no possibility of potential impacts on the qualifying interests or conservation objectives of the SAC arising from FRM methods at these AFAs.</p> <p>UoM09</p> <p>7 AFAs in UoM09 are within approximately 15km of Ballynafagh Bog SAC. These are: Celbridge (14.9km), Clane (5.0km), Hazelhatch (15.8km), Kilcock (9.8km), Maynooth (13.4km), Naas (7.5km), Newbridge (8.1km) and Turnings/Killeenmore (8.9km).</p> <p>In reviewing the EPA watercourse datasets Ballynafagh Lake SAC principally drains into the River Slate which has no hydraulic connectivity with any of the AFAs. The SAC also follows the route of the (now abandoned) Blackwood Branch (feeder) of the Grand Canal which links with the Grand Canal at Bonyng Bridge. Sections of the feeder canal appear to have been infilled, blocking any hydraulic linkage between the Grand Canal and the SAC.</p> <p>When the site's qualifying interests and conservation objectives are taken into consideration, there is no possibility of any upstream / upcatchment FRM methods being adopted at any of the AFAs in UoM09 that would have any adverse impacts on these interests and it is concluded that no potential impact pathway exists between the AFAs and the European site, nor any connectivity evident by virtue of a biodiversity stepping stone or corridor.</p>
Potential Impacts	<p>As there is no potential impact pathway between the qualifying interests of the Ballynafagh Lake SAC and the AFAs of Edenderry and Johnstown Bridge in UoM07, or the AFAs of Celbridge, Clane, Hazelhatch, Kilcock, Maynooth, Naas, Newbridge and Turnings / Killeenmore in UoM09, it has been concluded that the SAC will not be impacted by any of the FRM methods proposed in the AFAs of UoM07 or UoM09 and therefore will not be impacted by the Eastern CFRAM Study. Consequently, the SAC has been removed from any further screening.</p>

Name: Boyne Coast And Estuary SAC		Site Code: (IE00001957)
Qualifying Interest(s)	<p>Annex I habitats: 1130 Estuaries, 1140 Mudflats and sandflats not covered by seawater at low tide, 1310 Salicornia and other annuals colonizing mud and sand, 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>), 1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>) 2110 Embryonic shifting dunes, 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes') and the priority habitat 2130 Fixed coastal dunes with herbaceous vegetation ('grey dunes').</p>	
Proximity to AFA(s) and Linkage	<p>The AFAs of Baltray, Drogheda and Mornington, which are subject to both fluvial and coastal flooding, immediately border the Boyne Coast And Estuary SAC. Some areas of these AFAs are within the SAC boundary and therefore FRM methods may have a footprint within the SAC. There exists the potential for direct impacts from the implementation of FRM methods at these AFAs on the qualifying interests of the SAC.</p> <p>The AFAs of Athboy (40km), Ballivor (47.4km), Edenderry (63km), Johnstown Bridge (50km), Longwood (50km), Navan (23.4 km) and Trim (34km) are all in the River Boyne catchment, with upstream distances of between 32km (Navan) and 94km (Johnstown Bridge). Potential impacts of FRM methods at these AFAs are unlikely, but not impossible and as uncertainty remains, further assessment is recommended.</p>	
Potential Impacts	<p>There exists the potential for direct impacts on the qualifying interests of Boyne Coast And Estuary SAC from the implementation of FRM methods at Baltray, Drogheda and Mornington AFAs. There is the potential for indirect impacts on the qualifying interests from FRM methods at Athboy, Ballivor, Edenderry, Johnstown Bridge, Longwood, Navan and</p>	

	Trim. Appropriate Assessment is required to assess the significance of these impacts.
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Name: Boyne Estuary SPA		Site Code: (IE00004080)
Qualifying Interest(s)	"Wetlands" habitat supporting populations of Annex I species Shelduck <i>Tadorna tadorna</i> , Oystercatcher <i>Haematopus ostralegus</i> , Golden Plover <i>Pluvialis apricaria</i> , Grey Plover <i>Pluvialis squatarola</i> , Lapwing <i>Vanellus vanellus</i> , Knot <i>Calidris canutus</i> , Sanderling <i>Calidris alba</i> , Black-tailed Godwit <i>Limosa limosa</i> , Redshank <i>Tringa totanus</i> , Turnstone <i>Arenaria interpres</i> and Little Tern <i>Sterna albifrons</i> .	
Proximity to AFA(s) and Linkage	<p>The AFAs of Baltray, Drogheda and Mornington, which are subject to both fluvial and coastal flooding, immediately border the Boyne Coast And Estuary SPA. Some areas of these AFAs are within the SPA boundary and therefore FRM methods may have a footprint within the SPA. There exists the potential for direct impacts from the implementation of FRM methods at these AFAs on the qualifying interests of the SPA.</p> <p>The AFAs of Athboy (40km), Ballivor (47.4km), Edenderry (63km), Johnstown Bridge (50km), Longwood (50km), Navan (23.4 km) and Trim (34km) are all in the River Boyne catchment, with upstream distances from the SPA of between approx. 32km (Navan) and approx. 94km (Johnstown Bridge). Potential impacts on the qualifying interests of FRM methods at these AFAs are unlikely, but not impossible and as uncertainty remains, further assessment is recommended.</p>	
Potential Impacts	There exists the potential for indirect impacts on the qualifying interests of Boyne Coast And Estuary SPA from the implementation of FRM methods at Baltray, Drogheda and Mornington AFAs. Appropriate Assessment is required to assess the significance of these impacts.	

Name: Charleville Wood SAC		Site Code: (IE00000571)
Qualifying Interest(s)	<p>Annex I habitats: Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</p> <p>Annex II species: <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016]</p>	
Proximity to AFA(s) and Linkage	<p>Charleville Wood SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>The nearest AFA to Charleville Wood SAC is Edenderry, c. 30km away. Although the sites are connected via the Grand Canal, it is considered that the distance between Edenderry AFA and Charleville Wood SAC is sufficiently great that no potential impact pathway exists between the AFA and the qualifying interests of the SAC.</p>	
Potential Impacts	As there is no potential impact pathway between the qualifying interests of the Charleville Wood SAC and any of the AFAs in the Eastern CFRAMS Study area, it has been concluded that the SAC will not be impacted by the Eastern CFRAM Study. Consequently, the SAC has been removed from any further screening.	

Name: Clara Bog SAC		Site Code: (IE00000572)
Qualifying Interest(s)	<p>Annex I habitat: Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6210], Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150] and Bog woodland [91D0]</p> <p>Annex II species: <i>Euphydryas aurinia</i> (Marsh Fritillary) [1065]</p>	
Proximity to AFA(s) and	Clara Bog SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has	

Linkage	<p>been included in the screening.</p> <p>The nearest AFA to Clara Bog SAC is Edenderry, c. 33km away. Although the sites are connected via the Grand Canal, it is considered that the distance between Edenderry AFA and Clara Bog SAC is sufficiently great that no potential impact pathway exists between the AFA and the qualifying interests of the SAC.</p>
Potential Impacts	<p>As there is no potential impact pathway between the qualifying interests of the Clara Bog SAC and any of the AFAs in the Eastern CFRAMS Study area, it has been concluded that the SAC will not be impacted by the Eastern CFRAM Study. Consequently, the SAC has been removed from any further screening.</p>

Name: Clogher Head SAC Site Code: (IE00001459)	
Qualifying Interest(s)	Annex I habitats: Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] and European dry heaths [4030]
Proximity to AFA(s) and Linkage	<p>Clogher Head SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There are three AFAs within 15km of Clogher Head SAC - Baltray (5.9km), Drogheda (7.9km), and Mornington (6.7km). All three AFAs are subject to both coastal and fluvial flooding. The River Boyne discharges into the Irish Sea approximately 6.5km south of the SAC boundary.</p> <p>The qualifying interests for the SAC are not intertidal or water-dependent and therefore no impacts from the implementation of FRM methods in Baltray, Drogheda or Mornington AFAs are predicted to occur on the qualifying interests of the SAC as they are not susceptible to any potential alterations of flow from the River Boyne, alterations to the sediment regime at the mouth of the River Boyne, nor from the implementation of coastal flood defences.</p>
Potential Impacts	<p>As there is no potential impact pathway between the qualifying interests of the Clogher Head SAC and any of the AFAs in UoM07, it has been concluded that the SAC will not be impacted by the Eastern CFRAM Study. Consequently, the SAC has been removed from any further screening.</p>

Name: Dundalk Bay SAC Site Code: (IE00000455)	
Qualifying Interest(s)	Annex I habitats 1130 Estuaries, 1140 Mudflats and sandflats not covered by seawater at low tide, 1220 Perennial vegetation of stony banks, 1310 Salicornia and other annuals colonizing mud and sand, 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) and 1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>).
Proximity to AFA(s) and Linkage	<p>Dundalk Bay SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There are no AFAs within 15km of the SAC boundary; the nearest AFAs are Baltray (15.5km) and Drogheda (15.3km), both of which are subject to both fluvial and coastal flooding. These AFAs are separated from Dundalk Bay SAC by Clogher Head.</p> <p>Due to the separation distance, across coastal waters, no impacts from the implementation of FRM methods in Baltray or Drogheda are predicted to occur on the qualifying interests of the Dundalk Bay SAC, either from the alteration of flows within the affected watercourses, from alterations to the sediment regime where those watercourses discharge into the sea or from the implementation of coastal flood defences.</p>
Potential Impacts	<p>As there is no potential impact pathway between the qualifying interests of the Dundalk Bay SAC and any of the AFAs in UoM07, it has been concluded that the SAC will not be impacted by the Eastern CFRAM Study. Consequently, the SAC has been removed from any further screening.</p>

Name: Dundalk Bay SPA		Site Code: (IE00004026)
Qualifying Interest(s)	The qualifying interests are for “wetlands and waterbirds” including wintering populations of the bird species Great Crested Grebe <i>Podiceps cristatus</i> , Greylag Goose <i>Anser anser</i> , Light-bellied Brent Goose <i>Branta bernicla hrota</i> , Shelduck <i>Tadorna tadorna</i> , Teal <i>Anas crecca</i> , Mallard <i>Anas platyrhynchos</i> , Pintail <i>Anas acuta</i> , Common Scoter <i>Melanitta nigra</i> , Red-breasted Merganser <i>Mergus serrator</i> , Oystercatcher <i>Haematopus ostralegus</i> , Ringed Plover <i>Charadrius hiaticula</i> , Golden Plover <i>Pluvialis apricaria</i> , Grey Plover <i>Pluvialis squatarola</i> , Lapwing <i>Vanellus vanellus</i> , Knot <i>Calidris canutus</i> , Dunlin <i>Calidris alpina</i> , Black-tailed Godwit <i>Limosa limosa</i> , Bar-tailed Godwit <i>Limosa lapponica</i> , Curlew <i>Numenius arquata</i> , Redshank <i>Tringa totanus</i> , Black-headed Gull <i>Chroicocephalus ridibundus</i> , Common Gull <i>Larus canus</i> , and Herring Gull <i>Larus argentatus</i> .	
Proximity to AFA(s) and Linkage	<p>Dundalk Bay SPA is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There are three AFAs within 15km of Dundalk Bay SPA: Baltray (13.6km), Drogheda (14.9km) and Mornington (14.5km), all of which are subject to both coastal and fluvial flooding. These AFAs are separated from Dundalk Bay SPA by Clogher Head.</p> <p>Due to the separation distance, across coastal waters, no impacts from the implementation of FRM methods in Baltray, Drogheda or Mornington are predicted to occur on the qualifying interests of the Dundalk Bay SPA, either from the alteration of flows within the affected watercourses, from alterations to the sediment regime where those watercourses discharge into the sea or from the implementation of coastal flood defences</p>	
Potential Impacts	As there is no potential impact pathway between the qualifying interests of the Dundalk Bay SPA and any of the AFAs in UoM07, it has been concluded that the SPA will not be impacted by the Eastern CFRAM Study. Consequently, the SPA has been removed from any further screening.	

Name: Garriskil Bog SAC		Site Code: (IE00000679)
Qualifying Interest(s)	Annex I habitats: Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120] and Depressions on peat substrates of the Rhynchosporion [7150]	
Proximity to AFA(s) and Linkage	<p>Garriskil Bog SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There are no AFAs within 15km of the SAC boundary; the nearest AFAs are Ballivor and Athboy, more than 50 km from the site. There is no potential pathway for impacts on the qualifying interests of the site from any AFA in the Eastern CFRAM Study.</p>	
Potential Impacts	Garriskil Bog SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently it has been removed from any further screening.	

Name: Garriskil Bog SPA		Site Code: (IE00004102)
Qualifying Interest(s)	Annex I bird species Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395]	
Proximity to AFA(s) and Linkage	<p>Garriskil Bog SPA is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There are no AFAs within 15km of the SPA boundary; the nearest AFAs are Ballivor and Athboy, more than 50 km from the site. There is no potential pathway for impacts on the qualifying interests of the site from any AFA in the Eastern CFRAM Study.</p>	

Potential Impacts	Garriskil Bog SPA will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently it has been removed from any further screening.
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Name: Killyconny Bog (Cloghbally) SAC Site Code: (IE00000006)	
Qualifying Interest(s)	Annex I habitat: Active raised bogs [7110] and Degraded raised bogs still capable of natural regeneration [7120]
Proximity to AFA(s) and Linkage	Killyconny Bog (Cloghbally) SAC is located in the north-western portion of UoM07. There are no AFA(s) within 15km of the SAC boundary; the nearest AFAs are Navan and Athboy, which are more than 30 km from the site. The site has an indirect hydraulic link with Navan AFA via small tributaries which drain into the River Blackwater and Moynally River upstream of Navan. However, given the upstream distances involved, there is considered to be no potential pathway for impacts on the qualifying interests of the site from any AFA in the Eastern CFRAM Study.
Potential Impacts	As there is no potential impact pathway between the qualifying interests of the Killyconny Bog (Cloghbally) SAC and any of the AFAs in UoM07, it has been concluded that the SPA will not be impacted by the Eastern CFRAM Study. Consequently, the SPA has been removed from any further screening.

Name: Lough Bane And Lough Glass SAC Site Code: (IE00002120)	
Qualifying Interest(s)	Annex I Habitats: Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. [3140] Annex II species <i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092]
Proximity to AFA(s) and Linkage	Lough Bane And Lough Glass SAC is located in the western portion of UoM07. There are no AFAs within 15km of the SAC boundary; the nearest AFA is Athboy, which is 15.9km from the site. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and Athboy AFA. It is therefore concluded that no potential impact pathway exists between Athboy AFA and the SAC, nor between the site and any other AFA in the Eastern CFRAM Study. The site has an indirect hydraulic link with Trim AFA via small tributaries which drain into the River Deel (a tributary of the River Boyne). However, given the upstream distances involved (>50km), there is considered to be no potential pathway for impacts on the qualifying interests of the site from this or any other AFA in the Eastern CFRAM Study.
Potential Impacts	As there is no potential impact pathway between the qualifying interests of the Lough Bane And Lough Glass SAC and any of the AFAs in UoM07, it has been concluded that the SAC will not be impacted by the Eastern CFRAM Study. Consequently, the SAC has been removed from any further screening.

Name: Lough Derravaragh SPA Site Code: (IE00004043)	
Qualifying Interest(s)	Wetlands and Waterbirds [A999] habitat supporting Bird Species: A038 Whooper Swan <i>Cygnus cygnus</i> , A059 Pochard <i>Aythya farina</i> , A061 Tufted Duck <i>Aythya fuligula</i> and A125 Coot <i>Fulica atra</i>
Proximity to AFA(s) and Linkage	Lough Derravaragh SPA is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening. There are no AFAs within 15km of the SPA boundary; the nearest AFAs are Athboy and Ballivor, c. 23km from the site. On reviewing the datasets in the area, no possible hydraulic or

	biodiversity linkage is present between the European site and the AFAs of Athboy or Ballivor. It is therefore concluded that no potential impact pathway exists between the AFAs of Athboy and Ballivor and the SPA, nor between the site and any other AFA in the Eastern CFRAM Study.
Potential Impacts	Lough Derravaragh SPA will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently it has been removed from any further screening.

Name: Lough Ennell SAC Site Code: (IE00000685)	
Qualifying Interest(s)	Annex I habitat: Alkaline fens [7230]
Proximity to AFA(s) and Linkage	<p>Lough Ennell SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There are no AFAs within 15km of the SAC boundary; the nearest AFA is Athboy, c. 23km from the site. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and Athboy AFA. It is therefore concluded that no potential impact pathway exists between Athboy AFA and the SAC, nor between the site and any other AFA in the Eastern CFRAM Study.</p>
Potential Impacts	Lough Ennell SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently it has been removed from any further screening.

Name: Lough Ennell SPA Site Code: (IE00004044)	
Qualifying Interest(s)	Wetland and Waterbirds [A999] supporting bird species Pochard (<i>Aythya ferina</i>) [A059], Tufted Duck (<i>Aythya fuligula</i>) [A061], Coot (<i>Fulica atra</i>) [A125]
Proximity to AFA(s) and Linkage	<p>Lough Ennell SPA is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There are no AFAs within 15km of the SPA boundary; the nearest AFA is Athboy, c. 23km from the site. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and Athboy AFA. It is therefore concluded that no potential impact pathway exists between Athboy AFA and the SAC, nor between the site and any other AFA in the Eastern CFRAM Study.</p>
Potential Impacts	Lough Ennell SPA will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently it has been removed from any further screening.

Name: Lough Iron SPA Site Code: (IE00004046)	
Qualifying Interest(s)	Wetland and Waterbirds [A999] supporting populations of Whooper Swan (<i>Cygnus cygnus</i>) [A038], Wigeon (<i>Anas penelope</i>) [A050], Teal (<i>Anas crecca</i>) [A052], Shoveler (<i>Anas clypeata</i>) [A056], Coot (<i>Fulica atra</i>) [A125], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395]
Proximity to AFA(s) and Linkage	<p>Lough Iron SPA is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There are no AFAs within 15km of the SPA boundary; the nearest AFA is Ballivor, c. 32km from the site. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and Ballivor AFA. It is therefore concluded that no potential impact pathway exists between Ballivor AFA and the SPA, nor between the site and</p>

	any other AFA in the Eastern CFRAM Study.
Potential Impacts	Lough Iron SPA will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently it has been removed from any further screening.

Name: Lough Kinale and Derragh Lough SPA Site Code: (IE00004061)	
Qualifying Interest(s)	Wetland and Waterbirds supporting bird species [A999] Pochard (<i>Aythya ferina</i>) [A059] and Tufted Duck (<i>Aythya fuligula</i>) [A061]
Proximity to AFA(s) and Linkage	Lough Kinale and Derragh Lough SPA is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening. There are no AFAs within 15km of the SPA boundary; the nearest AFA is Athboy, c. 35km from the site. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and Athboy AFA. It is therefore concluded that no potential impact pathway exists between Athboy AFA and the SPA, nor between the site and any other AFA in the Eastern CFRAM Study.
Potential Impacts	Lough Kinale and Derragh Lough SPA will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently it has been removed from any further screening.

Name: Lough Lene SAC Site Code: (IE00002121)	
Qualifying Interest(s)	Annex I habitat: Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. [3140] Annex II species <i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092]
Proximity to AFA(s) and Linkage	There are no AFAs within 15km of the SPA boundary; the nearest AFA is Athboy, c. 17km from the site. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and Athboy AFA. It is therefore concluded that no potential impact pathway exists between Athboy AFA and the SPA, nor between the site and any other AFA in the Eastern CFRAM Study.
Potential Impacts	Lough Lene SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently it has been removed from any further screening.

Name: Lough Owel SAC Site Code: (IE00000688)	
Qualifying Interest(s)	Annex I habitats Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. [3140], Transition mires and quaking bogs [7140] and Alkaline fens [7230] Annex II species <i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092]
Proximity to AFA(s) and Linkage	Lough Owel SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening. There are no AFAs within 15km of the SAC boundary; the nearest AFA is Ballivor, c. 26km from the site. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and Ballivor AFA. It is therefore concluded that no potential impact pathway exists between Ballivor AFA and the SAC, nor between the site and any other AFA in the Eastern CFRAM Study.
Potential Impacts	Lough Owel SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently it has been removed from any further screening.

Name: Lough Owel SPA		Site Code: (IE00004047)
Qualifying Interest(s)	Wetland and Waterbirds [A999] supporting populations of bird species Shoveler (<i>Anas clypeata</i>) [A056] and Coot (<i>Fulica atra</i>) [A125]	
Proximity to AFA(s) and Linkage	<p>Lough Owel SPA is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There are no AFAs within 15km of the SPA boundary; the nearest AFA is Ballivor, c. 26km from the site. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and Ballivor AFA. It is therefore concluded that no potential impact pathway exists between Ballivor AFA and the SPA, nor between the site and any other AFA in the Eastern CFRAM Study.</p>	
Potential Impacts	Lough Owel SPA will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently it has been removed from any further screening.	

Name: Lough Sheelin SPA		Site Code: (IE00004065)
Qualifying Interest(s)	Wetland and Waterbirds [A999] supporting populations of bird species Great Crested Grebe (<i>Podiceps cristatus</i>) [A005], Pochard (<i>Aythya ferina</i>) [A059], Tufted Duck (<i>Aythya fuligula</i>) [A061] and Goldeneye (<i>Bucephala clangula</i>) [A067]	
Proximity to AFA(s) and Linkage	<p>Lough Sheelin SPA is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There are no AFAs within 15km of the SPA boundary; the nearest AFA is Athboy, c. 30km from the site. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and Athboy AFA. It is therefore concluded that no potential impact pathway exists between Athboy AFA and the SPA, nor between the site and any other AFA in the Eastern CFRAM Study.</p>	
Potential Impacts	Lough Sheelin SPA will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently it has been removed from any further screening.	

Name: Moneybeg And Clareisland Bogs SAC		Site Code: (IE00002340)
Qualifying Interest(s)	Annex I habitats: Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120] and Depressions on peat substrates of the Rhynchosporion [7150]	
Proximity to AFA(s) and Linkage	<p>Moneybeg And Clareisland Bogs SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There are no AFAs within 15km of the SAC boundary; the nearest AFA is Athboy, c. 30km from the site. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and Athboy AFA. It is therefore concluded that no potential impact pathway exists between Athboy AFA and the SAC, nor between the site and any other AFA in the Eastern CFRAM Study.</p>	
Potential Impacts	Moneybeg And Clareisland Bogs SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently it has been removed from any further screening.	

Name: Mouds Bog SAC		Site Code: (IE00002331)
Qualifying Interest(s)	Annex I habitats: Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150]	
Proximity to AFA(s) and Linkage	<p>Mouds Bog SAC is located in UoM09, but it is also located within 15km of UoM07 and therefore has been included in the screening.</p> <p>There are no AFAs from UoM07 within 15km of the SAC boundary. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and any of the AFAs in UoM07.</p>	
Potential Impacts	Mouds Bog SAC will not be impacted by any of the FRM methods proposed in UoM07. Further consideration is given to potential impacts from AFAs in UoM09 in that section.	

Name: Mount Hevey Bog SAC		Site Code: (IE00002342)
Qualifying Interest(s)	Annex I habitats: Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120] and Depressions on peat substrates of the Rhynchosporion [7150]	
Proximity to AFA(s) and Linkage	<p>There are four AFAs in UoM07 within 15km of Mount Hevey Bog SAC. These are: Ballivor (6.9km), Edenderry (12.7km), Johnstown Bridge (13.8km) and Longwood (6.3km).</p> <p>On reviewing the available data, it can be seen that there is no direct hydraulic connectivity between the Mount Hevey Bog SAC and the AFAs of Ballivor, Edenderry, Johnstown Bridge and Longwood. Mount Hevey Bog drains into the Deel and Kilwarden Rivers, which are tributaries of the Boyne. Ballivor, Edenderry, Johnstown Bridge and Longwood are all located on separate tributaries of the Boyne system. The Royal Canal provides a corridor between the SAC and the AFA of Longwood, however when the qualifying interests of the SAC are taken into context, there is no potential impact pathway.</p>	
Potential Impacts	As there is no potential impact pathway between the qualifying interests of Mount Hevey Bog SAC and any of the AFAs in UoM07, it has been concluded that the SAC will not be impacted by the Eastern CFRAM Study. Consequently, the SAC has been removed from any further screening.	

Name: Pollardstown Fen SAC		Site Code: (IE00000396)
Qualifying Interest(s)	<p>Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> [7210], Petrifying springs with tufa formation (Cratoneurion) [7220] and Alkaline fens [7230]</p> <p>Annex II Species: <i>Vertigo geyeri</i> (Geyer's Whorl Snail) [1013], <i>Vertigo angustior</i> (Narrow-mouthed Whorl Snail) [1014] and <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016]</p>	
Proximity to AFA(s) and Linkage	<p>Pollardstown Fen SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 (and UoM09) and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There are no AFAs from UoM07 within 15km of the SAC boundary. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and any of the AFAs in UoM07.</p>	
Potential Impacts	Pollardstown Fen SAC will not be impacted by any of the FRM methods proposed in UoM07. Further consideration is given to potential impacts from AFAs in UoM09 in that section.	

Name: Raheenmore Bog SAC		Site Code: (IE00000582)
Qualifying Interest(s)	Annex I habitats: Active raised bogs [7110] Degraded raised bogs still capable of natural	

	regeneration [7120] and Depressions on peat substrates of the Rhynchosporion [7150]
Proximity to AFA(s) and Linkage	<p>Raheenmore Bog SAC is located at the south western corner of UoM07. Watercourses from the bog drain into the Big River, which becomes the Yellow River, an upstream tributary of the River Boyne. The nearest AFA is Edenderry, 16.2km from the SAC boundary. There is no hydraulic connectivity between Raheenmore Bog SAC and Edenderry AFA, nor any connectivity by virtue of a biodiversity stepping stone or corridor.</p> <p>The downstream distances between the European site and other AFAs on the River Boyne (the closest of which is Trim, over 50km downstream) is such that there is not considered to be any potential impact pathway between the AFAs and the SAC.</p>
Potential Impacts	Raheenmore Bog SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently it has been removed from any further screening.

Name: River Boyne And River Blackwater SAC		Site Code: (IE00002299)
Qualifying Interest(s)	<p>Annex I habitats : Alkaline fens [7230] and Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0]</p> <p>Annex II Species: <i>Lampetra fluviatilis</i> (River Lamprey) [1099], <i>Salmo salar</i> (Salmon) [1106] and <i>Lutra lutra</i> (Otter) [1355]</p>	
Proximity to AFA(s) and Linkage	<p>There are 11 AFAs within the zone of influence of the River Boyne And River Blackwater SAC. These are: Athboy (0.0km), Ballivor (1.0km), Baltray (2.6km), Drogheda (0.0km), Edenderry (12.5km), Johnstown Bridge (8.7km), Kilcock (13.3 km – (in UoM09)), Longwood (1.1km), Mornington (2.8km), Navan (0.0km) and Trim (0.0km).</p> <p>One AFA, Kilcock, is in UoM09. There is no hydraulic connectivity between Kilcock AFA and the River Boyne And River Blackwater SAC, nor is there evidence of any connectivity by virtue of a biodiversity stepping stone or corridor. It is concluded that there is no potential impact pathway between the SAC and this AFA.</p> <p>Four AFAs; Athboy, Drogheda, Navan and Trim, are located on the SAC-designated rivers and all have potential to cause direct impacts on the SAC from the implementation of FRM methods at these AFAs.</p> <p>Two AFAs; Baltray and Mornington, are a short distance downstream of the SAC. There exists the potential for direct impacts to the Annex II species present as a qualifying interest of the River Boyne and River Blackwater SAC from the implementation of FRM methods at these AFAs.</p> <p>The AFAs of Edenderry and Johnstown Bridge are both c. 12km upstream (by river) of the River Boyne and River Blackwater SAC. Indirect impacts from the implementation of FRM methods are considered unlikely but cannot be ruled out, therefore further assessment is recommended.</p> <p>The AFAs of Ballivor and Longwood are less than 2km upstream by river from the SAC. There is the potential for the implementation of FRM methods to have both direct and indirect impacts on Annex II species that are qualifying interests of the SAC.</p>	
Potential Impacts	<p>There exists the potential for direct impacts on the qualifying interests of the River Boyne and River Blackwater SAC from the implementation of FRM methods at Athboy, Baltray, Drogheda, Mornington, Navan and Trim AFAs. There is the potential for indirect impacts arising from the implementation of FRM methods at Ballivor, Edenderry, Johnstown Bridge and Longwood AFAs; Appropriate Assessment is required to assess the significance of these impacts</p>	

Name: River Boyne and River Blackwater SPA		Site Code: (IE00004232)
Qualifying Interest(s)	Annex I species Kingfisher <i>Alcedo atthis</i> .	
Proximity to AFA(s) and	There are 11 AFAs within the zone of influence of the River Boyne and River Blackwater SPA.	

Linkage	<p>These are: Athboy (0.0km), Ballivor (1.0km), Baltray (8.2km), Drogheda (0.0km), Edenderry (12.5km), Johnstown Bridge (8.7km), Kilcock (15.1 km (in UoM09)), Longwood (1.1km), Mornington (8.8km), Navan (0.0km) and Trim (0.0km).</p> <p>One AFA, Kilcock, is in UoM09. There is no hydraulic connectivity between Kilcock AFA and the River Boyne And River Blackwater SPA, nor is there evidence of any connectivity by virtue of a biodiversity stepping stone or corridor. It is concluded that there is no potential impact pathway between the SPA and this AFA.</p> <p>Four AFAs; Athboy, Drogheda, Navan and Trim, are located on the SPA-designated rivers and all have potential to cause direct impacts on the SPA from the implementation of FRM methods at these AFAs.</p> <p>The AFAs of Edenderry and Johnstown Bridge are both c. 12km upstream (by river) of the River Boyne and River Blackwater SPA. Indirect impacts on the qualifying interest of the SPA from the implementation of FRM methods are considered unlikely but cannot be ruled out, therefore further assessment is recommended.</p> <p>The AFAs of Ballivor and Longwood are less than 2km upstream by river from the SPA. There is the potential for the implementation of FRM methods to have indirect impacts on the qualifying interest of the SPA.</p> <p>The AFAs of Baltray and Mornington are approximately 8km downstream of the SPA. There is potential for upstream / upcatchment FRM methods being adopted for Baltray or Mornington AFA that could have an impact on the qualifying interest of the River Boyne and River Blackwater SPA.</p>
Potential Impacts	<p>There exists the potential for direct impacts on the qualifying interests of the River Boyne and River Blackwater SPA from the implementation of FRM methods at Athboy, Drogheda, Navan and Trim AFAs. There is the potential for indirect impacts arising from the implementation of FRM methods at Ballivor, Baltray, Edenderry, Johnstown Bridge, Longwood and Mornington AFAs; Appropriate Assessment is required to assess the significance of these impacts</p>

Name: River Nanny Estuary and Shore SPA Site Code: (IE00004158)	
Qualifying Interest(s)	Wetland and Waterbirds [A999] supporting populations of Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Knot (<i>Calidris canutus</i>) [A143], Sanderling (<i>Calidris alba</i>) [A144] and Herring Gull (<i>Larus argentatus</i>) [A184]
Proximity to AFA(s) and Linkage	There are three AFAs within 15km of the River Nanny Estuary and Shore SPA: Baltray (5.5km), Drogheda (3.8km) and Mornington (1.7km). All three AFAs are on the River Boyne and are subject to both fluvial and coastal flooding. The distance from the river mouth to the SPA is 3.7km. FRM methods at all three AFAs which have the potential to impact on water quality or sedimentation may affect the prey distribution of species on which the qualifying interests of the River Nanny Estuary and Shore SPA may feed, and therefore may have potential impacts on the site's qualifying interests.
Potential Impacts	There exists the potential for indirect impacts on the qualifying interests of the River Nanny Estuary and Shore SPA from the implementation of FRM methods at Drogheda, Baltray and Mornington AFAs. Appropriate Assessment is required to assess the significance of these impacts.

Name: Rye Water Valley/Carton SAC Site Code: (IE00001398)	
Qualifying Interest(s)	Annex I habitat: Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220], Annex II species <i>Vertigo angustior</i> (Narrow-mouthed Whorl Snail) [1014] and <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016]
Proximity to AFA(s) and	Rye Water Valley/Carton SAC is located in UoM09, but it is also located within 15km of UoM07

Linkage	and therefore has been included in the screening. There are no AFAs from UoM07 within 15km of the SAC boundary. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and any of the AFAs in UoM07.
Potential Impacts	Rye Water Valley/Carton SAC will not be impacted by any of the FRM methods proposed in UoM07. Further consideration is given to potential impacts from AFAs in UoM09 in that section.

Name: Scragh Bog SAC Site Code: (IE00000692)	
Qualifying Interest(s)	Annex I habitats: Transition mires and quaking bogs [7140] and Alkaline fens [7230] Annex II species: <i>Euphydryas aurinia</i> (Marsh Fritillary) [1065] and <i>Drepanocladus vernicosus</i> (Slender Green Feather-moss) [1393]
Proximity to AFA(s) and Linkage	Scragh Bog SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening. The nearest AFA to Scragh Bog SAC is Ballivor, c. 25km away. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and any of the AFAs in UoM07.
Potential Impacts	As there is no potential impact pathway between the qualifying interests of the Scragh Bog SAC and any of the AFAs in the Eastern CFRAMS Study area, it has been concluded that the SAC will not be impacted by the Eastern CFRAM Study. Consequently, the SAC has been removed from any further screening.

Name: Split Hills And Long Hill Esker SAC Site Code: (IE00001831)	
Qualifying Interest(s)	Annex I habitat: Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6210]
Proximity to AFA(s) and Linkage	Split Hills And Long Hill Esker SAC outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening. The nearest AFA to Split Hills And Long Hill Esker SAC is Edenderry, c. 22km away. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and any of the AFAs in UoM07.
Potential Impacts	As there is no potential impact pathway between the qualifying interests of the Split Hills And Long Hill Esker SAC and any of the AFAs in the Eastern CFRAMS Study area, it has been concluded that the SAC will not be impacted by the Eastern CFRAM Study. Consequently, the SAC has been removed from any further screening.

Name: Stabannan-Braganstown SPA Site Code: (IE00004091)	
Qualifying Interest(s)	Annex I species Greylag Goose (<i>Anser anser</i>) for which the site supports an internationally important wintering population (35% of national total).
Proximity to AFA(s) and Linkage	Stabannan-Braganstown SPA is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening. The nearest AFA to Stabannan-Braganstown SPA is Drogheda, 15.7 km away. The SPA is in a separate catchment from Drogheda AFA and has no hydraulic connectivity with the site, nor

	any connectivity by virtue of a biodiversity stepping stone or corridor
Potential Impacts	As there is no potential impact pathway between the qualifying interests of the Stabannan-Braganstown SPA and any of the AFAs in the Eastern CFRAMS Study area, it has been concluded that the SPA will not be impacted by the Eastern CFRAM Study. Consequently, the SPA has been removed from any further screening.

Name: The Long Derries, Edenderry SAC Site Code: (IE00000925)	
Qualifying Interest(s)	Annex I habitat: Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6210]
Proximity to AFA(s) and Linkage	<p>The Long Derries, Edenderry SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM07 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There are three AFAs within approximately 15km of the Long Derries, Edenderry SAC. These are: Edenderry (2.9km), Johnstown Bridge (12.9km) and Longwood (15.7km).</p> <p>Johnstown Bridge and Longwood AFAs are on the River Blackwater catchment and there is no hydraulic connectivity between these sites and the SAC, nor any connectivity by virtue of a biodiversity stepping stone or corridor.</p> <p>In reviewing the EPA watercourse datasets it appears that Long Derries, Edenderry SAC has a watercourse passing through it which passes through the boundary of the Hydrometric Area and provides connectivity with Edenderry AFA, via the Grand Canal. However, when the site's qualifying interests and conservation objectives are taken into consideration, there is no possibility of any upstream / upcatchment FRM methods being adopted at Edenderry AFA that would have any adverse impacts on these interests and it is concluded that no potential impact pathway exists between the AFAs and the European site.</p>
Potential Impacts	As there is no potential impact pathway between the qualifying interests of the Long Derries, Edenderry SAC and any of the AFAs in UoM07, it has been concluded that the SAC will not be impacted by the Eastern CFRAM Study. Consequently, the SAC has been removed from any further screening.

Name: White Lough, Ben Loughs And Lough Doo SAC Site Code: (IE00001810)	
Qualifying Interest(s)	Annex I habitat: Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. [3140], Annex II species: <i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092]
Proximity to AFA(s) and Linkage	White Lough, Ben Loughs And Lough Doo SAC is in the north-eastern corner of UoM07. The nearest AFA is Athboy, 19.4km from the European site. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and Athboy AFA. It is therefore concluded that no potential impact pathway exists between Athboy AFA and the SAC, nor between the site and any other AFA in the Eastern CFRAM Study.
Potential Impacts	As there is no potential impact pathway between the qualifying interests of the White Lough, Ben Loughs And Lough Doo SAC and any of the AFAs in UoM07, it has been concluded that the SAC will not be impacted by the Eastern CFRAM Study. Consequently, the SAC has been removed from any further screening.

UOM09 SCREENING TABLES

Name: Baldoye Bay SAC		Site Code: (IE000199)
Qualifying Interest(s)	Annex I Habitats: Mudflats and sandflats not covered by seawater at low tide [1140], Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] and Salicornia and other annuals colonizing mud and sand [1310]	
Proximity to AFA(s) and Linkage	<p>There are eight AFAs/HPWs within 15km of Baldoye Bay SAC. These are: Clontarf (5.5km), Dublin City HPWs (0.0km), Lucan to Chapelizod (14.2km), Raheny (2.3km), Sandymount (9.0km), Santry (5.1km), Sutton & Baldoye (0.0km), Sutton & Howth North (0.0km)</p> <p>The AFAs of Clontarf, Raheny and Sandymount are all subject to coastal flood risk. These AFAs are on the shoreline of Dublin Bay, but are separated from Baldoye Bay SAC by Howth Head. Due to the separation distance between the sites, across coastal waters, no impacts from the implementation of coastal FRM methods in Clontarf, Raheny and Sandymount AFAs are predicted to occur on the qualifying interests of the Baldoye Bay SAC.</p> <p>The AFAs of Lucan to Chapelizod and Santry are located on the Rivers Liffey and Santry respectively. These rivers also discharge into Dublin Bay. Due to the separation distance between the sites, across coastal waters, no impacts from the implementation of FRM methods in Lucan to Chapelizod and Santry AFAs are predicted to occur on the qualifying interests of the Baldoye Bay SAC, either from the alteration of flows within the affected watercourses, from alterations to the sediment regime where those watercourses discharge into the sea, or from the implementation of coastal flood protection measures.</p> <p>Sutton & Baldoye and Sutton & Howth North AFAs are subject to coastal flooding. The coastlines of these AFAs, in addition to the boundary of the Dublin City HPWs, immediately borders the Baldoye Bay SAC and consequently there is a risk of direct impacts occurring from FRM methods at these AFAs.</p>	
Potential Impacts	There exists the potential for direct impacts on the qualifying interests of Baldoye Bay SAC from the implementation of FRM methods at the Dublin City HPWs, Sutton & Baldoye and Sutton & Howth North AFAs. Appropriate Assessment is required to assess the significance of these impacts.	

Name: Baldoye Bay SPA		Site Code: (IE004016)
Qualifying Interest(s)	Wetland and Waterbirds habitat [A999]supporting Species of Special Conservation Interest: Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Shelduck (<i>Tadorna tadorna</i>) [A048], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Grey Plover (<i>Pluvialis squatarola</i>) [A141] and Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]	
Proximity to AFA(s) and Linkage	<p>There are eight AFAs/HPWs within 15km of Baldoye Bay SPA. These are: Clontarf (5.5km),Dublin City HPWs (0.0km), Lucan to Chapelizod (14.6km), Raheny (2.3km), Sandymount (9.0km), Santry (5.4km), Sutton & Baldoye (0.0km) and Sutton & Howth North (0.0km)</p> <p>The AFAs of Clontarf, Raheny and Sandymount are all subject to coastal flood risk. These AFAs are on the shoreline of Dublin Bay, but are separated from Baldoye Bay SPA by Howth Head. Due to the separation distance between the sites, across coastal waters, no impacts from the implementation of coastal FRM methods in Clontarf, Raheny and Sandymount AFAs are predicted to occur on the qualifying interests of the Baldoye Bay SPA.</p> <p>The AFAs of Lucan to Chapelizod and Santry are located on the Rivers Liffey and Santry respectively. These rivers also discharge into Dublin Bay. Due to the separation distance between the sites, across coastal waters, no impacts from the implementation of FRM methods in Lucan to Chapelizod and Santry AFAs are predicted to occur on the qualifying interests of the Baldoye Bay SPA, either from the alteration of flows within the affected watercourses, from alterations to the sediment regime where those watercourses discharge into the sea, or from the implementation of coastal flood protection measures.</p> <p>Sutton & Baldoye and Sutton & Howth North AFAs are subject to coastal flooding. The</p>	

	coastlines of these AFAs, in addition to the boundary of the Dublin City HPWs, immediately borders the Baldoyle Bay SPA and consequently there is a risk of direct impacts occurring from FRM methods at these AFAs.
Potential Impacts	There exists the potential for direct impacts on the qualifying interests of Baldoyle Bay SPA from the implementation of FRM methods at the Dublin City HPWs, Sutton & Baldoyle and Sutton & Howth North AFAs. Appropriate Assessment is required to assess the significance of these impacts.

Name: Ballyman Glen SAC Site Code: (IE000713)	
Qualifying Interest(s)	Annex I Habitat: Alkaline fens [7230] and Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]
Proximity to AFA(s) and Linkage	<p>Ballyman Glen SAC is located in UoM10, but it is also located within 15km of UoM09 and therefore has been included in the screening.</p> <p>There is one AFA from UoM09 within 15km of the SAC boundary, Sandymount (12.3km), as well as the Dublin City HPWs. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and Sandymount AFA or the Dublin City HPWs and therefore it is considered that there is no potential impact pathway between the AFA/HPWs and Ballyman Glen SAC.</p> <p>There are further 6 AFAs in UoM10 within 15km of the European site; the review of these AFAs will be undertaken in the UoM10 section.</p>
Potential Impacts	Ballyman Glen SAC will not be impacted by any of the FRM methods proposed in UoM09. Further consideration is given to potential impacts from AFAs in UoM10 in that section.

Name: Ballynafagh Bog SAC Site Code: (IE000391)	
Qualifying Interest(s)	Annex I Habitat: Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120] and Depressions on peat substrates of the Rhynchosporion [7150]
Proximity to AFA(s) and Linkage	<p>Ballynafagh Bog SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM09 (and UoM07) and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening. There are 8 AFAs within approximately 15km of Ballynafagh Bog SAC, one of which is in UoM07 and the remainder in UoM09.</p> <p>UoM07</p> <p>Johnstown Bridge AFA is situated 11.9 km from Ballynafagh Wood SAC, but is in a separate hydrometric area and river catchment from the SAC. There is no apparent hydraulic connectivity between Johnstown Bridge AFA and Ballynafagh Wood SAC, nor is connectivity evident via an ecological stepping stone or corridor. There is no possibility of potential impacts on the qualifying interests or conservation objectives of the SAC arising from FRM methods at this AFA.</p> <p>UoM09</p> <p>There are 7 AFAs in UoM09 within approximately 15km of Ballynafagh Bog SAC. These are: Celbridge (14.2km), Clane (3.8km), Hazelhatch (15.8km), Kilcock (10.1km), Maynooth (13.3km), Naas (8.2km), Newbridge (9.9km) and Turnings/Killeenmore (7.9km).</p> <p>In reviewing the EPA watercourse datasets it appears that Ballynafagh Bog SAC is surrounded by a network of streams and aqueducts that straddle the boundary between catchments and hydrometric areas with no clear watershed defined. These drainage channels appear to provide connectivity between the site and the AFAs of Clane (via Butter Stream) and Turnings/Killeenmore (via the Grand Canal) and consequently downstream on the River Liffey/Grand Canal to Celbridge and Hazelhatch. However, when the site's qualifying interests and conservation objectives are taken into consideration, there is no possibility of any upstream / upcatchment FRM methods being adopted at these AFAs that would have any adverse impacts on these interests and it is concluded that no potential impact pathway exists</p>

	<p>between the AFAs and the European site.</p> <p>There is no hydraulic connectivity between Ballynafagh Bog SAC and the AFAs of Kilcock, Maynooth, Naas and Newbridge, nor any connectivity evident by virtue of a biodiversity stepping stone or corridor. It is concluded that no potential impact pathway exists between these AFAs and the European site.</p>
Potential Impacts	<p>As there is no potential impact pathway between the qualifying interests of the Ballynafagh Bog SAC and the AFA of Johnstown Bridge in UoM07, or the AFAs of Celbridge, Clane, Hazelhatch, Kilcock, Maynooth, Naas, Newbridge and Turnings/Killeenmore in UoM09, it has been concluded that the SAC will not be impacted by any of the FRM methods proposed in the AFAs of UoM07 or UoM09 and therefore will not be impacted by the Eastern CFRAM Study. Consequently, the SAC has been removed from any further screening.</p>

Name: Ballynafagh Lake SAC Site Code: (IE001387)	
Qualifying Interest(s)	<p>Annex I Habitat: Alkaline fens [7230], Annex II Species, <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016] and <i>Euphydryas aurinia</i> (Marsh Fritillary) [1065]</p>
Proximity to AFA(s) and Linkage	<p>Ballynafagh Lake SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM09 (and UoM07) and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening. There are 9 AFAs within approximately 15km of Ballynafagh Lake SAC; two of which are in UoM07 and the remainder in UoM09.</p> <p>UoM07</p> <p>Johnstown Bridge and Edenderry AFAs are situated 11.1 km and 15.8km respectively from Ballynafagh Wood SAC. The AFAs are in a separate hydrometric area and river catchment from the SAC. There is no apparent hydraulic connectivity between Johnstown Bridge or Edenderry AFA and Ballynafagh Wood SAC, nor is connectivity evident via an ecological stepping stone or corridor. There is no possibility of potential impacts on the qualifying interests or conservation objectives of the SAC arising from FRM methods at these AFAs.</p> <p>UoM09</p> <p>7 AFAs in UoM09 are within approximately 15km of Ballynafagh Bog SAC. These are: Celbridge (14.9km), Clane (5.0km), Hazelhatch (15.8km), Kilcock (9.8km), Maynooth (13.4km), Naas (7.5km), Newbridge (8.1km) and Turnings/Killeenmore (8.9km).</p> <p>In reviewing the EPA watercourse datasets Ballynafagh Lake SAC principally drains into the River Slate which has no hydraulic connectivity with any of the AFAs. The SAC also follows the route of the (now abandoned) Blackwood Branch (feeder) of the Grand Canal which links with the Grand Canal at Bonyng Bridge. Sections of the feeder canal appear to have been infilled, blocking any hydraulic linkage between the Grand Canal and the SAC.</p> <p>When the site's qualifying interests and conservation objectives are taken into consideration, there is no possibility of any upstream / upcatchment FRM methods being adopted at any of the AFAs in UoM09 that would have any adverse impacts on these interests and it is concluded that no potential impact pathway exists between the AFAs and the European site, nor any connectivity evident by virtue of a biodiversity stepping stone or corridor.</p>
Potential Impacts	<p>As there is no potential impact pathway between the qualifying interests of the Ballynafagh Lake SAC and the AFAs of Edenderry and Johnstown Bridge in UoM07, or the AFAs of Celbridge, Clane, Hazelhatch, Kilcock, Maynooth, Naas, Newbridge and Turnings / Killeenmore in UoM09, it has been concluded that the SAC will not be impacted by any of the FRM methods proposed in the AFAs of UoM07 or UoM09 and therefore will not be impacted by the Eastern CFRAM Study. Consequently, the SAC has been removed from any further screening.</p>

Name: Bray Head SAC Site Code: (IE000714)	
Qualifying Interest(s)	<p>Annex I Habitat: Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] and European dry heaths [4030]</p>

Proximity to AFA(s) and Linkage	<p>Bray Head SAC is located in UoM10, but it is also located within 15km of UoM09 and therefore has been included in the screening.</p> <p>There are two AFAs/HPWs from UoM09 within 15km of the SAC boundary, Dublin City HPWs (10.2km) and Sandymount (15.2km). On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and the Dublin City HPWs or Sandymount AFA and therefore it is considered that there is no potential impact pathway between the AFA./HPW and Bray Head SAC.</p> <p>There are further seven AFAs in UoM10 within 15km of the European site; the review of these AFAs will be undertaken in the UoM10 section.</p>
Potential Impacts	<p>Bray Head SAC will not be impacted by any of the FRM methods proposed in UoM09. Further consideration is given to potential impacts from AFAs in UoM10 in that section.</p>

Name: Broadmeadow/Swords Estuary SPA		Site Code: (IE004025)
Qualifying Interest(s)	<p>Wetland and Waterbirds [A999] supporting Species of Special Conservation Interest: Great Crested Grebe (<i>Podiceps cristatus</i>) [A005], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Shelduck (<i>Tadorna tadorna</i>) [A048], Pintail (<i>Anas acuta</i>) [A054], Goldeneye (<i>Bucephala clangula</i>) [A067], Red-breasted Merganser (<i>Mergus serrator</i>) [A069], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Knot (<i>Calidris canutus</i>) [A143], Dunlin (<i>Calidris alpina</i>) [A149], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] and Redshank (<i>Tringa totanus</i>) [A162]</p>	
Proximity to AFA(s) and Linkage	<p>There are eight AFAs/HPWs within 15km of the Broadmeadow/Swords Estuary SPA. These are: Clontarf (9.6km), Dublin City HPWs (4.4km), Lucan to Chapelizod (15.2km), Raheny (6.7km), Sandymount (13.1km), Santry (6.3km), Sutton & Baldoyle (4.4km) and Sutton & Howth North (5.0km).</p> <p>The AFAs of Clontarf, Raheny and Sandymount are all subject to coastal flooding only and are within Dublin Bay, separated from Broadmeadow/Swords Estuary SPA by Howth Head. Lucan to Chapelizod and Santry AFAs are located upstream from the coast on rivers which also discharge into Dublin Bay. Although large areas of Dublin Bay are also designated for bird habitats, it is considered that due to the distances involved, around Howth Head, no adverse impacts to the qualifying interests of Broadmeadow/Swords Estuary SPA are expected to arise, either from the alteration of flows within the affected watercourses, from alterations to the sediment regime where those watercourses discharge into Dublin Bay or from the implementation of coastal flood protection measures in Dublin Bay.</p> <p>Sutton & Baldoyle and Sutton & Howth North are subject to coastal flooding only. The two AFAs are 4.4 and 5km respectively from Broadmeadow/Swords Estuary SPA and the Dublin City HPWs are also 4.4km from the site. Baldoyle Bay pNUoM and Malahide Estuary pNUoM afford some connectivity between the AFAs/HPW and the European site, however there is 2km of undesignated coastline with open coastal waters and less favourable habitats for bird feeding between the sites. It is considered that due to the distances involved, there is no potential impact pathway for adverse impacts to the qualifying interests of Broadmeadow/Swords Estuary SPA from the implementation of coastal flood protection measures at Sutton & Baldoyle and Sutton & Howth North, or at the Dublin City HPWs.</p>	
Potential Impacts	<p>As there is no potential impact pathway between the qualifying interests of the Broadmeadow/Swords Estuary SPA and the AFAs/HPWs of Clontarf, Dublin City, Lucan to Chapelizod, Raheny, Sandymount, Santry, Sutton & Baldoyle and Sutton & Howth North, it has been concluded that the SPA will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently, the SPA has been removed from any further screening.</p>	

Name: Carrigower Bog SAC	Site Code: (IE000716)
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Qualifying Interest(s)	Annex I Habitat: Transition mires and quaking bogs [7140]
Proximity to AFA(s) and Linkage	Carriggower Bog SAC is located in UoM10, but it is also located within 15km of UoM09 and therefore has been included in the screening. There are no AFAs from UoM09 within 15km of the SAC boundary. There are eight AFAs in UoM10 within 15km of the European site; the review of these AFAs will be undertaken in the UoM10 section.
Potential Impacts	Carriggower Bog SAC will not be impacted by any of the FRM methods proposed in UoM09. Further consideration is given to potential impacts from AFAs in UoM10 in that section.

Name: Dalkey Islands SPA		Site Code: (IE004172)
Qualifying Interest(s)	Species of Special Conservation Interest: Roseate Tern (<i>Sterna dougallii</i>) [A192], Common Tern (<i>Sterna hirundo</i>) [A193] and Arctic Tern (<i>Sterna paradisaea</i>) [A194]	
Proximity to AFA(s) and Linkage	<p>Dalkey Islands SPA is a short distance offshore from UoM09. There are 12 AFAs/HPWs within 15km of Dalkey Islands SPA; seven in UoM09 and five in UoM10.</p> <p>UoM09</p> <p>The AFAs in UoM09 with potential to influence the SPA are: Clontarf (10.7km), Dublin City HPWs, Raheny (11.0km), Sandymount (8.4km), Santry (15.5km), Sutton & Baldoyle (12.2km) and Sutton & Howth North (11.1km). The tern species which are the qualifying interests of the SPA and which use the Dalkey Islands as a roosting/staging area, interact with and may originate from breeding sites at Rockabill and South Dublin Bay. The implementation of coastal FRM methods at Sandymount AFA, which borders South Dublin Bay and River Tolka Estuary SPA has the potential for indirect impacts on the qualifying interests of the Dalkey Islands SPA. FRM methods at the Dublin City HPWs may also have the potential for indirect impacts on the qualifying interests of the Dalkey Islands SPA.</p> <p>For the AFAs of Clontarf, Raheny, Santry, Sutton & Baldoyle and Sutton & Howth North, it is considered that the distances involved are such that no impact pathway exists between the European site and these AFAs.</p> <p>UoM10</p> <p>The AFAs in UoM10 with potential to influence the SPA are: Bray (6.5km), Greystones (11.4km), Kilcoole (15.6km), Loughlinstown (2.8km) and Old Connaught & Wilford (4.5km). All of these AFAs are coastally-located and Bray, Greystones and Loughlinstown are subject to coastal flood risk as well as fluvial. These AFAs, the closest of which is Loughlinstown, 2.8km from the site, are separated from the Dalkey Islands by open coastal waters with strong tidal currents present in Dalkey Sound and Muglins Sound. It is considered that the deep waters and strong currents surrounding the islands would rule out the potential for an impact pathway to be present between the AFAs in UoM10 and the SPA. No impacts from the implementation of FRM methods in these five AFAs, such as the alteration of flows within the affected watercourses, alterations to the sediment regime where those watercourses discharge into the Irish Sea or impacts from the implementation from coastal FRM methods, are predicted to reach the qualifying interests of the Dalkey Islands SPA.</p>	
Potential Impacts	<p>It is considered that there is no potential impact pathway between the qualifying interests of the Dalkey Islands SPA and the AFAs of Clontarf , Raheny , Santry , Sutton & Baldoyle and Sutton & Howth North in UoM09, or Bray, Greystones, Kilcoole, Loughlinstown and Old Connaught & Wilford in UoM10.</p> <p>There exists the potential for indirect impacts on the qualifying interests of Dalkey Islands SPA from FRM methods at Sandymount AFA and from the Dublin City HPWs. Appropriate Assessment is required to assess the significance of these impacts.</p>	

Name: Glen of The Downs SAC	Site Code: (IE000719)
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Qualifying Interest(s)	Annex I Habitat: Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles [91A0]
Proximity to AFA(s) and Linkage	<p>Glen of The Downs SAC is located in UoM10, but it is also located within 15km of UoM09 and therefore has been included in the screening.</p> <p>The boundary of the Dublin City HPWs is 14.3km from the SAC boundary however a review of the available hydraulic and environmental data confirms that there is no potential connectivity or impact pathway between Glen of The Downs SAC and the Dublin City HPWs.</p> <p>There are eight AFAs in UoM10 within 15km of the European site; the review of these AFAs will be undertaken in the UoM10 section.</p>
Potential Impacts	Glen of The Downs SAC will not be impacted by any of the FRM methods proposed in UoM09. Further consideration is given to potential impacts from AFAs in UoM10 in that section.

Name: Glenasmole Valley SAC		Site Code: (IE001209)
Qualifying Interest(s)	Annex I Habitat: Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(*important orchid sites) [6210], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410] and Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]	
Proximity to AFA(s) and Linkage	<p>There are 12 AFAs/HPWs within 15km of Glenasmole Valley SAC; nine in UoM09 and three in UoM10.</p> <p>UoM09</p> <p>The AFAs in UoM09 with potential to influence the SAC are: Baldonnel (7.0km), Blessington (12.6km), Celbridge (13.0km), Dublin City HPWs (2.1km), Hazelhatch (12.0km), Leixlip (12.9km), Lucan to Chapelizod (9.7km), Sandymount (12.0km) and Turnings/Killeenmore (14.8km). The Glenasmole Valley SAC is located in the environs of the Glenasmole Reservoirs, which are impounding reservoirs on the River Dodder. With the exception of Sandymount, none of the AFAs in UoM09 have any hydraulic connectivity with the Dodder catchment, nor any connectivity by virtue of a biodiversity corridor or stepping stone. Sandymount AFA is at the downstream limit of the River Dodder, however it is at risk of coastal flooding only, therefore there is no potential for FRM methods at this AFA to have any impact on the qualifying interests of the SAC. The boundary of the Dublin City HPWs, which incorporates the River Dodder, is 2.1km downstream of the SAC boundary. The River Dodder has been subject to a separate AA and NIS which presented a conclusion of no significant impacts from FRM methods in its catchment.</p> <p>UoM10</p> <p>The AFAs in UoM10 with potential to influence the SAC are: Bray (13.2km), Loughlinstown (14.4km) and Old Connaught & Wilford (13.6km). These AFAs are in entirely separate catchments with no hydraulic connectivity to the SAC, nor is any connectivity evident by virtue of a biodiversity stepping stone or corridor.</p>	
Potential Impacts	It is considered that there is no potential impact pathway between the qualifying interests of the Glenasmole Valley SAC and any of the AFAs in UoM09 or UoM10. It has therefore been concluded that the SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study and as a consequence the SAC has been removed from any further screening.	

Name: Howth Head Coast SPA		Site Code: (IE004113)
Qualifying Interest(s)	Species of Special Conservation Interest: Kittiwake (<i>Rissa tridactyla</i>) [A188]	
Proximity to AFA(s) and Linkage	There are nine AFAs/HPWs within 15km of Howth Head Coast SPA; seven in UoM09 and two in UoM10.	

	<p>UoM09</p> <p>The AFAs in UoM09 with potential to influence the SPA are: Clontarf (8.5km), Dublin City HPWs (2.6km), Raheny (6.2km), Sandymount (10.9km), Santry (10.9km), Sutton & Baldoyle (4.4km) and Sutton & Howth North (2.6km). With the exception of Santry and the Dublin City HPWs (which are subject to fluvial flooding) all of the AFAs border Dublin Bay and are subject to coastal flooding only (although Sutton & Howth and Sutton & Baldoyle also have coastline on Baldoyle Bay to the north of Howth Head). The SPA is designated for its cliff habitats which are home to a nationally important population of the qualifying interest. The designation extends 500m offshore, where seabirds socialise and feed. Due to the separation distance between the AFAs, which are in relatively sheltered bay waters, and the SPA, which is in open coastal waters, no impacts from the implementation of coastal FRM methods in Clontarf, Raheny, Sandymount, Santry, Sutton & Baldoyle and Sutton & Howth North AFAs are predicted to occur on the qualifying interests of Howth Head Coast SPA.</p> <p>The boundary of the Dublin City HPWs polygon is 2.6km from the SPA boundary. However, the discharge point of the nearest river, the Santry River, is 4.3km at its closest point and the Lower Liffey is around 6.5km. The potential impacts on the qualifying interest of the SPA of FRM methods at these HPWs, such as the alteration of flows within the affected watercourses, or alterations to the sediment regime where those watercourses discharge into Dublin Bay is uncertain.</p> <p>UoM10</p> <p>The AFAs in UoM10 with potential to influence the SPA are: Loughlinstown (12.8km) and Old Connaught & Wilford (14.8km). Due to the separation distance between the AFAs, which are located on the opposite (southern) side of Dublin Bay, separated by open coastal waters, no impacts from the implementation of fluvial or coastal FRM methods in Loughlinstown and Old Connaught & Wilford AFAs are predicted to occur on the qualifying interests of Howth Head Coast SPA.</p>
Potential Impacts	<p>It is considered that there is no potential impact pathway between the qualifying interests of Howth Head Coast SPA and any of the AFAs in UoM09 or UoM10, with the exception of the Dublin City HPWs where the potential impact pathway is uncertain. Appropriate Assessment is recommended to assess the significance of these impacts.</p>

Name: Howth Head SAC		Site Code: (IE000202)
Qualifying Interest(s)	Annex I Habitat: Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] and European dry heaths [4030]	
Proximity to AFA(s) and Linkage	<p>There are eight AFAs/HPWs within 15km of Howth Head Coast SAC; seven in UoM09 and two in UoM10.</p> <p>UoM09</p> <p>The AFAs in UoM09 with potential to influence the SAC are: Clontarf (5.8km), Dublin City HPWs (0.8km), Raheny (3.6km), Sandymount (8.6km), Santry (8.5km), Sutton & Baldoyle (2.4km) and Sutton & Howth North (0.8km).</p> <p>The qualifying interests for the SAC are not intertidal, though vegetated sea cliffs are classed as water-dependent. The main pressures on the qualifying interests are described in the context of increased/enriched water seepage down the cliff face from development near cliff tops. In this respect no potential impacts from the implementation of coastal FRM methods in Clontarf, Raheny, Sandymount, Sutton & Baldoyle or Sutton & Howth North AFAs and fluvial FRM methods in Santry AFA or the Dublin City HPWs are predicted to occur on the qualifying interests of the Howth Head SAC.</p> <p>UoM10</p> <p>The AFAs in UoM10 with potential to influence the SAC are: Loughlinstown (12.3km) and Old Connaught & Wilford (14.6km). Due to the separation distance between the AFAs, which are located on the opposite (southern) side of Dublin Bay, separated by open coastal waters, no impacts from the implementation of fluvial or coastal FRM methods in Loughlinstown and Old Connaught & Wilford AFAs are predicted to occur on the qualifying interests of Howth Head SAC.</p>	

Potential Impacts	It is considered that there is no potential impact pathway between the qualifying interests of Howth Head SAC and any of the AFAs/HPWs in UoM09 or UoM10. It has therefore been concluded that the SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study and as a consequence the SAC has been removed from any further screening.
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Name: Ireland's Eye SAC		Site Code: (IE002193)
Qualifying Interest(s)	Annex I Habitat: Perennial vegetation of stony banks [1220] and Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	
Proximity to AFA(s) and Linkage	Ireland's Eye SAC is a small island approx. 1.5km offshore from Howth Head in UoM09. There are seven AFAs/HPWs in UoM09 within 15km of Ireland's Eye SAC: Clontarf (9.0km), Dublin City HPWs (2.1km), Raheny (6.0km), Sandymount (12.3km), Santry (9.9km), Sutton & Baldoyle (3.7 km and Sutton & Howth North (2.1km). All of the SACs are either within, or discharge into Dublin Bay, although Sutton and Baldoyle and Sutton and Howth North also have coastline in Baldoyle bay. With the exception of Santry and the Dublin City HPWs (which are subject to fluvial flooding) all these AFAs are subject to coastal flooding only. Baldoyle Bay SAC extends approx. 1km along the mudflats and sandflats of Baldoyle spit from Sutton & Howth North towards Ireland's Eye, however there is still c.900m of open water (Howth Sound) between the AFA and the Ireland's Eye SAC. It is considered that due to the separation distance, across open coastal waters, there is no potential impact pathway and the implementation of FRM methods in any of these AFAs/HPWs is not predicted have any impact on the qualifying interests of the Ireland's Eye SAC.	
Potential Impacts	It is considered that there is no potential impact pathway between the qualifying interests of Ireland's Eye SAC and any of the AFAs in the Eastern CFRAM Study Area. It has therefore been concluded that the SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study and as a consequence the SAC has been removed from any further screening.	

Name: Ireland's Eye SPA		Site Code: (IE004117)
Qualifying Interest(s)	Species of Special Conservation Interest: Cormorant (<i>Phalacrocorax carbo</i>) [A017], Herring Gull (<i>Larus argentatus</i>) [A184], Kittiwake (<i>Rissa tridactyla</i>) [A188], Guillemot (<i>Uria aalge</i>) [A199] and Razorbill (<i>Alca torda</i>) [A200]	
Proximity to AFA(s) and Linkage	Ireland's Eye SPA is a small island approx. 1.5km offshore from Howth Head in UoM09. There are seven AFAs/HPWs in UoM09 within 15km of Ireland's Eye SAC: Clontarf (8.8km), Dublin City HPWs (1.9km), Raheny (5.8km), Sandymount (12.1km), Santry (9.7km), Sutton & Baldoyle (3.5km) and Sutton & Howth North (1.9km). All of the SACs are either within, or discharge into Dublin Bay, although Sutton and Baldoyle and Sutton and Howth North also have coastline in Baldoyle Bay. With the exception of Santry and the Dublin City HPWs (which are subject to fluvial flooding) all these AFAs are subject to coastal flooding only. Baldoyle Bay SAC extends approx. 1km along the mudflats and sandflats of Baldoyle spit from Sutton & Howth North towards Ireland's Eye, however there is still c.750m of open water (Howth Sound) between the AFA and the Ireland's Eye SPA. It is considered that due to the separation distance, across open coastal waters, there is no potential impact pathway and the implementation of FRM methods in any of these AFAs/HPWs is not predicted have any impact on the qualifying interests of the Ireland's Eye SPA.	
Potential Impacts	It is considered that there is no potential impact pathway between the qualifying interests of Ireland's Eye SPA and any of the AFAs in the Eastern CFRAM Study area. It has therefore been concluded that the SPA will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study and as a consequence the SPA has been removed from any further screening.	

Name: Knocksink Wood SAC		Site Code: (IE000725)
Qualifying Interest(s)	Annex I Habitat: Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220] and Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) [91E0]	
Proximity to AFA(s) and Linkage	<p>Knocksink Wood SAC is located in UoM10, but it is also located within 15km of UoM09 and therefore has been included in the screening.</p> <p>There is one AFA, Sandymount (12.6km) and the Dublin City HPWs (5.3km) within 15km of the SAC boundary. On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and Sandymount AFA or the Dublin City HPWs and therefore it is considered that there is no potential impact pathway between the AFA/HPWs and Knocksink Wood SAC, nor any other AFA in UoM09.</p> <p>There are six AFAs in UoM10 within 15km of the European site; the review of these AFAs will be undertaken in the UoM10 section.</p>	
Potential Impacts	Knocksink Wood SAC will not be impacted by any of the FRM methods proposed in UoM09. Further consideration is given to potential impacts from AFAs in UoM10 in that section.	

Name: Lambay Island SAC		Site Code: (IE000204)
Qualifying Interest(s)	Annex I Habitat: Reefs [1170], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Annex II Species, <i>Halichoerus grypus</i> (Grey Seal) [1364] and <i>Phoca vitulina</i> (Common Seal) [1365]	
Proximity to AFA(s) and Linkage	<p>Lambay Island is a small island approx. 4km offshore from Portrane in UoM08. As it is located within 15km of UoM09, it has been included in the screening.</p> <p>There are five AFAs/HPWs in UoM09 within 15km of Lambay Island SAC: Dublin City HPWs (10.9km), Raheny (13.8km), Santry (15.5km), Sutton & Baldoyle (11.4km), Sutton & Howth North (10.9km).</p> <p>Due to the separation distance, across coastal waters, no impacts from the implementation of coastal FRM methods in Raheny, Sutton & Baldoyle and Sutton & Howth North, or from fluvial FRM methods in Santry and the Dublin City HPWs, are predicted to occur on the qualifying interests of the Lambay Island SAC, either from the alteration of flows within the affected watercourses, from alterations to the sediment regime where those watercourses discharge into the sea or from the implementation of coastal flood defences.</p>	
Potential Impacts	As there is no potential impact pathway between the qualifying interests of the Lambay Island SAC and any of the AFAs/HPWs in UoM09, it has been concluded that the SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently the SAC has been removed from any further screening.	

Correspondence

Name: Lambay Island SPA		Site Code: (IE004069)
Qualifying Interest(s)	Species of Special Conservation Interest: Fulmar (<i>Fulmarus glacialis</i>) [A009], Cormorant (<i>Phalacrocorax carbo</i>) [A017], Shag (<i>Phalacrocorax aristotelis</i>) [A018], Greylag Goose (<i>Anser anser</i>) [A043], Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183], Herring Gull (<i>Larus argentatus</i>) [A184], Kittiwake (<i>Rissa tridactyla</i>) [A188], Guillemot (<i>Uria aalge</i>) [A199], Razorbill (<i>Alca torda</i>) [A200] and Puffin (<i>Fratercula arctica</i>) [A204]	
Proximity to AFA(s) and Linkage	<p>Lambay Island is a small island approx. 4km offshore from Portrane in UoM08. As it is located within 15km of UoM09, it has been included in the screening.</p> <p>There are five AFAs/HPWs in UoM09 within 15km of Lambay Island SPA: Dublin City HPWs (10.7km), Raheny (13.6km), Santry (15.5km), Sutton & Baldoyle (11.2km), Sutton & Howth North (10.7km).</p> <p>Due to the separation distance, across coastal waters, no impacts from the implementation of</p>	

	coastal FRM methods in Raheny, Sutton & Baldoyle and Sutton & Howth North, or from fluvial FRM methods in Santry and the Dublin City HPWs, are predicted to occur on the qualifying interests of the Lambay Island SPA, either from the alteration of flows within the affected watercourses, from alterations to the sediment regime where those watercourses discharge into the sea or from the implementation of coastal flood defences.
Potential Impacts	As there is no potential impact pathway between the qualifying interests of the Lambay Island SPA and any of the AFAs/HPWs in UoM09, it has been concluded that the SPA will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently the SPA has been removed from any further screening.

Name: Malahide Estuary SAC		Site Code: (IE000205)
Qualifying Interest(s)	Annex I Habitat: Mudflats and sandflats not covered by seawater at low tide [1140], <i>Salicornia</i> and other annuals colonising mud and sand [1310], <i>Spartina</i> swards (<i>Spartinion maritimae</i>) [1320], Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] and Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	
Proximity to AFA(s) and Linkage	<p>Malahide Estuary SAC is on the border between UoM09 and the neighbouring UoM08. There are eight AFAs/HPWs from UoM09 within 15km of the SAC. These are: Clontarf (8.9km), Dublin City HPWs (3.6km), Lucan to Chapelizod (15.2km), Raheny (6.0km), Sandymount (12.4km), Santry (6.3km), Sutton & Baldoyle (3.6km) and Sutton & Howth North (4.2km).</p> <p>The AFAs of Clontarf, Raheny and Sandymount are all subject to coastal flooding only and are within Dublin Bay, separated from Malahide Estuary SAC by Howth Head. Lucan to Chapelizod and Santry AFAs are located upstream from the coast on rivers which also discharge into Dublin Bay. The Dublin City HPWs also discharge into Dublin Bay. No adverse impacts to the qualifying interests of Malahide Estuary SAC are expected to arise, either from the alteration of flows within the affected watercourses, from alterations to the sediment regime where those watercourses discharge into Dublin Bay or from the implementation of coastal flood protection measures in Dublin Bay.</p> <p>Sutton & Baldoyle and Sutton & Howth North are subject to coastal flooding only and in addition to having coastline in Dublin Bay, south of Howth Head, they also have coastline in Baldoyle Bay, north of Howth Head. The two AFAs are 3.6km and 4.2km respectively from Malahide Estuary SAC and are separated from the site by open coastal waters. It is considered that due to the distances involved, across open water, there is no potential impact pathway for adverse impacts to the qualifying interests of Malahide Estuary SAC from the implementation of coastal flood protection measures at Sutton & Baldoyle and Sutton & Howth North.</p>	
Potential Impacts	As there is no potential impact pathway between the qualifying interests of the Malahide Estuary SAC and any of the AFAs/HPWs in UoM09, it has been concluded that the SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently the SAC has been removed from any further screening.	

Name: Mouds Bog SAC		Site Code: (IE002331)
Qualifying Interest(s)	Annex I Habitat: Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120] and Depressions on peat substrates of the <i>Rhynchosporion</i> [7150]	
Proximity to AFA(s) and Linkage	<p>Mouds Bog SAC is a raised bog on the eastern boundary of UoM09. There are four AFAs in UoM09 within 15km of the site, these are: Clane (9.4km), Naas (5.9km), Newbridge (0.7km) and Turnings/Killeenmore (11.3km).</p> <p>On reviewing the available datasets in the area, there are no watercourses either draining in to, or out of, the SAC. There is no hydraulic linkage present with any of the AFAs in UoM09, nor is there any connectivity by virtue of a biodiversity stepping stone or corridor. It is</p>	

	concluded that no potential impact pathway exists between any of the AFAs in UoM09 and the qualifying interests of Mouds Bog SAC.
Potential Impacts	As there is no potential impact pathway between the qualifying interests of the Mouds Bog SAC and any of the AFAs in UoM09, it has been concluded that the SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently the SAC has been removed from any further screening.

Name: North Bull Island SPA		Site Code: (IE004006)
Qualifying Interest(s)	Wetland and Waterbirds [A999] habitat supporting Species of Special Conservation Interest: Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Shelduck (<i>Tadorna tadorna</i>) [A048], Teal (<i>Anas crecca</i>) [A052], Pintail (<i>Anas acuta</i>) [A054], Shoveler (<i>Anas clypeata</i>) [A056], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Knot (<i>Calidris canutus</i>) [A143], Sanderling (<i>Calidris alba</i>) [A144], Dunlin (<i>Calidris alpina</i>) [A149], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Curlew (<i>Numenius arquata</i>) [A160], Redshank (<i>Tringa totanus</i>) [A162], Turnstone (<i>Arenaria interpres</i>) [A169] and Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]	
Proximity to AFA(s) and Linkage	<p>There are 11 AFAs/HPWs within 15km of North Bull Island SPA. Eight AFAs are in UoM09 - Clontarf (0.0km), Dublin City HPWs (0.0km), Lucan to Chapelizod (10.1km), Raheny (0.0km), Sandymount (3.5km), Santry (4.5km), Sutton & Baldoyle (0.0km) and Sutton & Howth North (0.0km).</p> <p>Ten additional AFAs, Baldonnel (19.7km), Celbridge (23.0km), Clane (c.32.7km), Hazelhatch (22.6km), Kilcock (c.31.2km), Leixlip (19.3km), Maynooth (c.25.8km), Naas (c.30.8km), Newbridge (c.41.4km) and Turnings/Killeenmore (c.27.9km) were also screened. These AFAs, although in excess of 15 linear km from the European site, are directly upstream of it and may therefore influence it.</p> <p>Three AFAs are in UoM10: Bray (15.1km), Loughlinstown (10.5km) and Old Connaught & Wilford (13.0km). The assessment of the potential impacts from AFAs in UoM10 has been undertaken in that section.</p> <p>The AFAs of Clontarf, Raheny, Sutton & Baldoyle and Sutton & Howth North, which are all subject to coastal flood risk only, immediately border the SPA. There is potential for direct impacts on the qualifying interests of the SPA from the implementation of coastal FRM methods at these AFAs.</p> <p>Sandymount AFA is also subject to coastal flood risk and borders the South Dublin Bay and River Tolka Estuary SPA, which adjoins the North Bull Island SPA. The implementation of coastal FRM methods at Sandymount AFA has the potential to generate indirect impacts on the qualifying interests of the North Bull Island SPA.</p> <p>A number of the Dublin City HPWs discharge directly into the SPA and there is therefore a risk of direct impacts to the qualifying interests from FRM methods in these catchments. The AFAs of Lucan to Chapelizod and Santry are located on rivers upstream from Dublin Bay <10km and <5km upstream respectively from the European site (Lucan to Chapelizod is subject to coastal as well as fluvial flood risk). There is a risk of direct and indirect impacts on the qualifying interests of North Bull Island SPA from the implementation of coastal and/or fluvial FRM methods at these AFAs/HPWs.</p> <p>The upstream distance from North Bull Island SPA to the catchment of Leixlip AFA is approximately 23.5km. Indirect impacts on the qualifying interests of the European site from FRM methods at Leixlip AFA are unlikely, but not impossible, therefore further assessment is recommended.</p> <p>The AFAs of Baldonnel, Celbridge, Clane, Hazelhatch, Kilcock, Leixlip, Maynooth, Naas, Newbridge and Turnings/Killeenmore are all in the River Liffey catchment, with upstream distances from Dublin Bay of between 23.5km (Leixlip) and 61km (Newbridge). Potential impacts of FRM methods at these AFAs are unlikely, but not impossible and as uncertainty remains, further assessment is recommended.</p>	
Potential Impacts	There exists the potential for direct impacts on the North Bull Island SPA from FRM methods	

	<p>at Clontarf, Dublin City HPWs, Raheny, Sutton & Baldoyle and Sutton & Howth North. There exists the potential for indirect impacts on the North Bull Island SPA from FRM methods at Sandymount, Lucan to Chapelizod and Santry AFAs. Appropriate Assessment is required to determine the significance of these impacts.</p> <p>The consideration of potential Impacts from AFAs in UoM10 has been undertaken in that section.</p>
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Name: North Dublin Bay SAC		Site Code: (IE000206)
Qualifying Interest(s)	<p>Annex I Habitats: Mudflats and sandflats not covered by seawater at low tide [1140], Annual vegetation of drift lines [1210], Salicornia and other annuals colonising mud and sand [1310], Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) [1330], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Embryonic shifting dunes [2110], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120], Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] and Humid dune slacks [2190]</p> <p>Annex II Species, <i>Petalophyllum ralfsii</i> (Petalwort) [1395]</p>	
Proximity to AFA(s) and Linkage	<p>There are 11 AFAs within 15km of North Dublin Bay SAC. Eight AFAs are in UoM09 - Clontarf (0.0km), Dublin City HPWs (0.0km), Lucan to Chapelizod (10.1km), Raheny (0.0km), Sandymount (3.5km), Santry (4.5km), Sutton & Baldoyle (0.0km) and Sutton & Howth North (0.0km).</p> <p>Ten additional AFAs, Baldonnel (19.7km), Celbridge (23.0km), Clane (c.32.7km), Hazelhatch (22.6km), Kilcock (c.31.2km), Leixlip (19.3km), Maynooth (c.25.8km), Naas (c.30.8km), Newbridge (c.41.4km) and Turnings/Killeenmore (c.27.9km) were also screened. These AFAs, although in excess of 15 linear km from the European site, are directly upstream of it and may therefore influence it.</p> <p>Three AFAs are in UoM10: Bray (15.1km), Loughlinstown (10.5km) and Old Connaught & Wilford (13.1km). The assessment of the potential impacts from AFAs in UoM10 has been undertaken in that section.</p> <p>The AFAs of Clontarf, Raheny, Sutton & Baldoyle and Sutton & Howth North, which are all subject to coastal flood risk only, immediately border the SAC. There is potential for direct impacts on the qualifying interests of the SAC from the implementation of coastal FRM methods at these AFAs.</p> <p>Sandymount AFA is also subject to coastal flood risk and borders the South Dublin Bay SAC. The implementation of coastal FRM methods at Sandymount AFA has the potential to generate indirect impacts on the qualifying interests of the North Dublin Bay SAC if the coastal processes in Dublin Bay are significantly changed.</p> <p>A number of the Dublin City HPWs discharge directly into the SAC and there is therefore a risk of direct impacts to the qualifying interests from FRM methods in these catchments. The AFAs of Lucan to Chapelizod and Santry are located on rivers upstream from Dublin Bay <10km and <5km upstream respectively from the European site (Lucan to Chapelizod is subject to coastal as well as fluvial flood risk). There is a risk of indirect impacts on the qualifying interests of North Dublin Bay SAC from the implementation of coastal and/or fluvial FRM methods at these AFAs.</p> <p>The AFAs of Baldonnel, Celbridge, Clane, Hazelhatch, Kilcock, Leixlip, Maynooth, Naas, Newbridge and Turnings/Killeenmore are all in the River Liffey catchment, with upstream distances from Dublin Bay of between c.23.5km (Leixlip) and c.61km (Newbridge). Potential impacts of FRM methods at these AFAs are unlikely, but not impossible and as uncertainty remains, further assessment is recommended.</p>	
Potential Impacts	<p>There exists the potential for direct impacts on the North Dublin Bay SAC from FRM methods at Clontarf, Dublin City HPWs, Raheny, Sutton & Baldoyle and Sutton & Howth North. There exists the potential from indirect impacts on the North Dublin Bay SAC from FRM methods at Baldonnel, Celbridge, Clane, Hazelhatch, Kilcock, Leixlip, Lucan to Chapelizod, Maynooth, Naas, Newbridge, Sandymount and Turnings/Killeenmore AFAs. Appropriate Assessment is required to determine the significance of these impacts.</p> <p>The consideration of potential Impacts from AFAs in UoM10 has been undertaken in that</p>	

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Name: Pollardstown Fen SAC		Site Code: (IE000396)
Qualifying Interest(s)	<p>Annex I Habitat: Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> [7210], Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220], Alkaline fens [7230]</p> <p>Annex II Species, <i>Vertigo geyeri</i> (Geyer's Whorl Snail) [1013], <i>Vertigo angustior</i> (Narrow-mouthed Whorl Snail) [1014] and <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016]</p>	
Proximity to AFA(s) and Linkage	<p>Pollardstown Fen SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM09 (and UoM07) and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There are four AFAs within 15km of Pollardstown Fen SAC: Clane (13.7km), Naas (9.4km), Newbridge (0.0km) and Turnings/Killeenmore (15.6km).</p> <p>On reviewing the available environmental and hydraulic data, it can be seen that the AFAs of Clane, Naas and Turnings/Killeenmore have no hydraulic connectivity, nor any connectivity by virtue of a biodiversity stepping stone or corridor. It is concluded that no potential impact pathway exists between these AFAs and the European site.</p> <p>The boundary of Pollardstown Fen SAC touches the boundary of Newbridge AFA. Although a review of watercourse and other environmental information suggests that there is no hydraulic connectivity with the River Liffey, more detailed information is required on FRM methods to confirm this. Further assessment is therefore recommended at the next stage of the FRMP.</p>	
Potential Impacts	<p>There exists the potential for indirect impacts on the Pollardstown Fen SAC from FRM methods at Newbridge AFA. Appropriate Assessment is required to determine the significance of these impacts.</p>	

Name: Poulaphouca Reservoir SPA		Site Code: (IE004063)
Qualifying Interest(s)	<p>Species of Special Conservation Interest: Greylag Goose (<i>Anser anser</i>) [A043], Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183]</p>	
Proximity to AFA(s) and Linkage	<p>Poulaphouca Reservoir is a man-made lake, created by impounding the River Liffey for the purpose of hydro power generation. It also receives water from the King's River.</p> <p>There are seven AFAs within approximately 15km of the Poulaphouca Reservoir SPA: Baldonnel (11.9km), Blessington (0.0km), Celbridge (14.9km), Dublin City HPWs (7.9km), Hazelhatch (15.2km), Naas (7.5km), Newbridge (13.3km) and Turnings/Killeenmore (12.1km).</p> <p>The AFAs of Newbridge and Celbridge, and the Dublin City HPWs are located on the River Liffey, downstream of the SPA. Downstream distances are well in excess of 18km there is no possibility of any upstream / upcatchment FRM methods being adopted for Newbridge or Celbridge AFAs, or the Dublin City HPWs, that would have any impact on the qualifying interests of the SPA.</p> <p>The AFAs of Baldonnel, Hazelhatch, Naas and Turnings/Killeenmore have no hydraulic connectivity with the reservoir, nor any connectivity by virtue of a biodiversity stepping stone or corridor. It is concluded that no potential impact pathway exists between these AFAs and the European site.</p> <p>Blessington AFA immediately borders the SPA and the watercourses passing through the AFA drain into Poulaphouca Reservoir. There exists the potential for direct impacts on the qualifying interests of the SPA from FRM methods at Blessington AFA.</p>	
Potential Impacts	<p>There exists the potential for direct impacts on the Poulaphouca Reservoir SPA from FRM methods at Blessington AFA. Appropriate Assessment is required to determine the significance of these impacts.</p>	

Name: Red Bog Kildare SAC		Site Code: (IE000397)
Qualifying Interest(s)	Annex I Habitat: Transition mires and quaking bogs [7140]	
Proximity to AFA(s) and Linkage	<p>Red Bog Kildare SAC is a wetland complex of lake, fen and bog situated in a hollow between upland ridges of glacially-deposited material. There are nine AFAs/HPWs within 15km of Red Bog Kildare SAC. They are: Baldonnel (10.8km), Blessington (1.7km), Celbridge (12.6km), Clane (13.3km), Dublin City HPWs (7.6km), Hazelhatch (13.1km), Naas (6.1km), Newbridge (14.3km) and Turnings/Killeenmore (9.1km).</p> <p>A review of the watercourse and environmental data for the site shows no watercourses issuing from or draining into the site. There is therefore no hydraulic connectivity with any of the AFAs in UoM09. In addition, no connectivity by virtue of a biodiversity stepping stone or corridor is evident. Although the SAC is only 1.7km from Blessington AFA, it is located 60m uphill and is separated from the AFA by a large sand quarry. It is concluded that no potential impact pathway exists between any of the AFAs/HPWs in UoM09 and the European site.</p>	
Potential Impacts	<p>As there is no potential impact pathway between the qualifying interests of the Red Bog Kildare SAC and any of the AFAs/HPWs in UoM09, it has been concluded that the SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently the SAC has been removed from any further screening.</p>	

Name: River Barrow And River Nore SAC		Site Code: (IE002162)
Qualifying Interest(s)	<p>Annex I Habitat: Estuaries [1130], Mudflats and sandflats not covered by seawater at low tide [1140], Salicornia and other annuals colonising mud and sand [1310], Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) [1330], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260], European dry heaths [4030], Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430], Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220], Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] and Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0]</p> <p>Annex II Species: <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016], <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029], <i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092], <i>Petromyzon marinus</i> (Sea Lamprey) [1095], <i>Lampetra planeri</i> (Brook Lamprey) [1096], <i>Lampetra fluviatilis</i> (River Lamprey) [1099], <i>Alosa fallax fallax</i> (Twait Shad) [1103], <i>Salmo salar</i> (Salmon) [1106], <i>Lutra lutra</i> (Otter) [1355], <i>Trichomanes speciosum</i> (Killarney Fern) [1421] and <i>Margaritifera durrovensis</i> (Nore Pearl Mussel) [1990]</p>	
Proximity to AFA(s) and Linkage	<p>River Barrow And River Nore SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM09 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There is one AFA, Newbridge (10.0km) within 15km of River Barrow And River Nore SAC. Examination of the available watercourse and environmental data shows that Newbridge AFA is hydraulically separated from the catchment of the Newbridge AFA and there is no potential hydraulic connectivity between the sites and no connectivity by virtue of a biodiversity stepping stone or corridor is evident. It is concluded that no potential impact pathway exists between any of the AFAs in UoM09 and the River Barrow And River Nore SAC.</p>	
Potential Impacts	<p>As there is no potential impact pathway between the qualifying interests of the River Barrow And River Nore SAC and any of the AFAs in UoM09, it has been concluded that the SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently the SAC has been removed from any further screening.</p>	

Name: River Boyne And River Blackwater SAC		Site Code: (IE002299)
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Qualifying Interest(s)	Annex I Habitat: Alkaline fens [7230], Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) [91E0] Annex II Species: <i>Lampetra fluviatilis</i> (River Lamprey) [1099], <i>Salmo salar</i> (Salmon) [1106], <i>Lutra lutra</i> (Otter) [1355],
Proximity to AFA(s) and Linkage	The River Boyne And River Blackwater SAC is located in UoM07, but it is also located within 15km of UoM09 and therefore has been included in the screening. There is one AFA from UoM09 within 15km of the SAC boundary, Kilcock (13.3km). On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and Kilcock AFA and therefore it is considered that there is no potential impact pathway between this AFA and the River Boyne And River Blackwater SAC. There are further 10 AFAs in UoM07 within 15km of the European site; the review of these AFAs is undertaken in the UoM07 section.
Potential Impacts	The River Boyne And River Blackwater SAC will not be impacted by any of the FRM methods proposed in UoM09. Further consideration is given to potential impacts from AFAs in UoM07 in that section.

Name: River Boyne and River Blackwater SPA Site Code: (IE004232)	
Qualifying Interest(s)	Species of Special Conservation Interest: Kingfisher (<i>Alcedo atthis</i>) [A229]
Proximity to AFA(s) and Linkage	The River Boyne and River Blackwater SPA is located in UoM07, but it is also located within 15km of UoM09 and therefore has been included in the screening. There are no AFAs from UoM09 within 15km of the SAC boundary, the nearest is Kilcock (15.1km). On reviewing the datasets in the area, no possible hydraulic or biodiversity linkage is present between the European site and Kilcock AFA and therefore it is considered that there is no potential impact pathway between this AFA and the River Boyne and River Blackwater SPA. There are further 10 AFAs in UoM07 within 15km of the European site; the review of these AFAs is undertaken in the UoM07 section.
Potential Impacts	The River Boyne and River Blackwater SPA will not be impacted by any of the FRM methods proposed in UoM09. Further consideration is given to potential impacts from AFAs in UoM07 in that section.

Name: Rockabill SPA Site Code: (IE004014)	
Qualifying Interest(s)	Species of Special Conservation Interest: Purple Sandpiper (<i>Calidris maritima</i>) [A148], Roseate Tern (<i>Sterna dougallii</i>) [A192], Common Tern (<i>Sterna hirundo</i>) [A193], Arctic Tern (<i>Sterna paradisaea</i>) [A194]
Proximity to AFA(s) and Linkage	Rockabill consists of two small, low-lying, granitic islets situated c. 7 km off the Co. Dublin coast. The boundary of Rockabill SPA is 14.8km from Mornington AFA (subject to both fluvial and coastal flood risk). Due to the separation distance, across coastal waters, no impacts from the implementation of FRM methods in Mornington AFA are predicted to occur on the qualifying interests of the Rockabill SPA, either from the alteration of flows within the affected watercourses, from alterations to the sediment regime where those watercourses discharge into the sea or from the implementation of coastal flood defences
Potential Impacts	As there is no potential impact pathway between the qualifying interests of the Rockabill SPA and Mornington AFA, it has been concluded that the SPA will not be impacted by any of the FRM methods proposed in the UoM07 AFAs and therefore will not be impacted by the Eastern CFRAM Study. Consequently the SPA has been removed from any further screening.

Name: Rockabill to Dalkey Island SAC		Site Code: (IE003000)
Qualifying Interest(s)	<p>Annex I Habitat: Reef [1170]</p> <p>Annex II Species: <i>Phocoena phocoena</i> (Harbour Porpoise) [1351]</p>	
Proximity to AFA(s) and Linkage	<p>Rockabill to Dalkey Island SAC encompasses a large and broadly rectangular-shaped offshore area, measuring approximately 7 km wide and 40 km in length, extending south from Rockabill Island, running adjacent to Howth Head, and crossing the outer part of Dublin Bay to Frazer Bank in south Co. Dublin. The site encompasses Dalkey, Muglins and Rockabill islands.</p> <p>There are 12 AFAs/HPWs within 15km of Rockabill to Dalkey Island SAC. Seven AFAs/HPWs are in UoM09: Clontarf (6.2km), Dublin City HPWs (1.8km), Raheny (4.4km), Sandymount (7.6km), Santry (9.3km), Sutton & Baldoyle (3.3km) and Sutton & Howth North (1.8km). With the exception of Santry (which is subject to fluvial flood risk), all these AFAs are subject to coastal flood risk. Having regard to the separation distance, across coastal waters and the nature of the qualifying interests, no impacts from the implementation of FRM methods in the AFAs in UoM09 are predicted to occur on the qualifying interests of the Rockabill to Dalkey Island SAC, either from the alteration of flows within the affected watercourses, from alterations to the sediment regime where those watercourses discharge into the sea, or from the implementation of coastal flood defences.</p> <p>Five AFAs are in UoM10: Bray (4.1km), Greystones (9.1km), Kilcoole (13.0km), Loughlinstown (1.5km) and Old Connaught & Wilford (2.3km). The assessment of the potential impacts from AFAs in UoM10 has been undertaken in that section.</p>	
Potential Impacts	<p>As there is no potential impact pathway between the qualifying interests of the Rockabill to Dalkey Island SAC and any of the AFAs in UoM09 and UoM10, it has been concluded that the SPA will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently the SAC has been removed from any further screening.</p>	

Name: Rogerstown Estuary SAC		Site Code: (IE000208)
Qualifying Interest(s)	<p>Annex I Habitats: Estuaries [1130], Mudflats and sandflats not covered by seawater at low tide [1140], <i>Salicornia</i> and other annuals colonizing mud and sand [1310], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330], Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] and Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]</p>	
Proximity to AFA(s) and Linkage	<p>Rogerstown Estuary SAC is located in UoM08, but it is also located within 15km of UoM09 and therefore has been included in the screening.</p> <p>There are six AFAs/HPWs in UoM09 within 15km of Rogerstown Estuary SAC. They are: Clontarf (14.9km), Dublin City HPWs (10.3km), Raheny (12.7km), Santry (10.4km), Sutton & Baldoyle (10.3km) and Sutton & Howth North (10.8km). With the exception of Santry and the Dublin City HPWs (which are subject to fluvial flood risk), all these AFAs are subject to coastal flood risk only.</p> <p>Due to the separation distance between these AFAs/HPWs and the SAC, across open coastal waters, no impacts from the implementation of FRM methods in Clontarf, Raheny, Santry, Sutton & Baldoyle and Sutton & Howth North AFAs or the Dublin City HPWs, are predicted to occur on the qualifying interests of the Rogerstown Estuary SAC, either from the alteration of flows within the affected watercourses, from alterations to the sediment regime where those watercourses discharge into the sea, or from the implementation of coastal flood protection measures.</p>	
Potential Impacts	<p>As there is no potential impact pathway between the qualifying interests of the Rogerstown Estuary SAC and any of the AFAs/HPWs in UoM09, it has been concluded that the SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently the SAC has been removed from any further screening</p>	

Name: Rogerstown Estuary SPA		Site Code: (IE004015)
Qualifying Interest(s)	Wetland and Waterbirds [A999] habitat supporting populations of Species of Special Conservation Interest: Greylag Goose (<i>Anser anser</i>) [A043], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Shelduck (<i>Tadorna tadorna</i>) [A048], Shoveler (<i>Anas clypeata</i>) [A056], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Knot (<i>Calidris canutus</i>) [A143], Dunlin (<i>Calidris alpina</i>) [A149], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Redshank (<i>Tringa totanus</i>) [A162],	
Proximity to AFA(s) and Linkage	<p>Rogerstown Estuary SPA is located in UoM08, but it is also located within 15km of UoM09 and therefore has been included in the screening.</p> <p>There are five AFAs in UoM09 within approximately 15km of Rogerstown Estuary SPA. They are: Clontarf (15.1km), Dublin City HPWs (10.4km), Raheny (12.4km), Santry (10.7km), Sutton & Baldoyle (10.0km) and Sutton & Howth North (10.4km). With the exception of Santry and the Dublin City HPWs (which are subject to fluvial flood risk), all these AFAs are subject to coastal flood risk only.</p> <p>Due to the separation distance between these AFAs/HPWs and the SPA, across open coastal waters, no impacts from the implementation of FRM methods in Clontarf, Raheny, Santry, Sutton & Baldoyle and Sutton & Howth North AFAs, or the Dublin City HPWs, are predicted to occur on the qualifying interests of the Rogerstown Estuary SPA, either from the alteration of flows within the affected watercourses, from alterations to the sediment regime where those watercourses discharge into the sea, or from the implementation of coastal flood protection measures.</p>	
Potential Impacts	<p>As there is no potential impact pathway between the qualifying interests of the Rogerstown Estuary SPA and any of the AFAs/HPWs in UoM09, it has been concluded that the SPA will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently the SPA has been removed from any further screening</p>	

Name: Rye Water Valley/Cartron SAC		Site Code: (IE001398)
Qualifying Interest(s)	<p>Annex I Habitat: Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]</p> <p>Annex II Species, <i>Vertigo angustior</i> (Narrow-mouthed Whorl Snail) [1014] and <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016]</p>	
Proximity to AFA(s) and Linkage	<p>Rye Water Valley/Cartron SAC is located in UoM09 between Leixlip and Maynooth, in Counties Meath and Kildare, and extends along the Rye Water, a tributary of the River Liffey.</p> <p>There are nine AFAs within 15km of Rye Water Valley/Cartron SAC. They are: Baldonnell (6.3km), Celbridge (2.2km), Clane (11.7km), Dublin City HPWs (10.9km), Hazelhatch (4.3km), Kilcock (4.9km), Leixlip (0.0km), Lucan to Chapelizod (2.0km), Maynooth (0.0km) and Turnings/Killeenmore (10.4km).</p> <p>The AFAs of Clane, Celbridge, Hazelhatch and Turnings/Killeenmore are upstream of the impoundment of the Leixlip Reservoir on the River Liffey and therefore have no hydraulic connectivity with the SAC.</p> <p>Baldonnell AFA is on a separate tributary of the River Liffey, the Griffin River) which joins the Liffey 3.6km downstream of the Rye Water Valley/Cartron SAC and therefore also has no hydraulic connectivity.</p> <p>The boundary of the Dublin City HPW area is 11 linear km (c. 13km downstream) from the Rye Water Valley/Cartron SAC. There is no possibility of any upstream / upcatchment FRM methods being adopted for the Dublin City HPWs that would have any impact on the qualifying interests or conservation objectives of Rye Water Valley/Cartron SAC.</p> <p>Kilcock AFA is approximately 5km upstream of the SAC and Maynooth is immediately upstream of the SAC. Indirect impacts may occur on the SAC qualifying interests from the implementation of FRM methods at these AFAs.</p> <p>The AFA passes through Leixlip AFA and therefore there is potential for direct impacts on the qualifying interests from FRM methods at this AFA.</p> <p>Lucan to Chapelizod AFA is 2km downstream from the SAC. Indirect impacts on the qualifying</p>	

	interest of Rye Water Valley/Carton SAC are considered unlikely, but not impossible, if upcatchment methods are considered and therefore further assessment is recommended once FRM methods under consideration have been finalised, in order to assess whether the impacts are significant.
Potential Impacts	There exists the potential for indirect impacts on the qualifying interest of Rye Water Valley/Carton SAC from the implementation of FRM methods at Kilcock, Leixlip, Lucan to Chapelizod and Maynooth AFAs; Appropriate Assessment is required to assess the significance of these impacts.

Name: Skerries Islands SPA Site Code: (IE004122)	
Qualifying Interest(s)	Species of Special Conservation Interest: Cormorant (<i>Phalacrocorax carbo</i>) [A017], Shag (<i>Phalacrocorax aristotelis</i>) [A018], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Purple Sandpiper (<i>Calidris maritima</i>) [A148], Turnstone (<i>Arenaria interpres</i>) [A169] and Herring Gull (<i>Larus argentatus</i>) [A184]
Proximity to AFA(s) and Linkage	The Skerries Islands are a group of three small uninhabited islands situated between 0.5 km and 1.5 km off the north Dublin coast (UoM08). The seas surrounding the islands, to a distance of 200m, are included in the site. Although the site is located at UoM08, it is also located within 15km of UoM09 and therefore has been included in the screening. There are no AFAs from UoM09 within 15km of the SPA boundary; the nearest sites are Sutton & Baldoyle and Sutton & Howth North which are more than 18km away. It is considered that there is no potential impact pathway between these AFAs and Skerries Islands SPA.
Potential Impacts	As there is no potential impact pathway between the qualifying interests of the Skerries Islands SPA and any of the AFAs in UoM09 (and UoM07), it has been concluded that the SPA will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently the SPA has been removed from any further screening

Name: Slaney River Valley SAC Site Code: (IE000781)	
Qualifying Interest(s)	Annex I Habitat: Estuaries [1130], Mudflats and sandflats not covered by seawater at low tide [1140], Water courses of plain to montane levels with the <i>Ranunculus fluitans</i> and <i>Callitriche-Batrachion</i> vegetation [3260], Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] and Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) [91E0] Annex II Species, <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029], <i>Petromyzon marinus</i> (Sea Lamprey) [1095], <i>Lampetra planeri</i> (Brook Lamprey) [1096], <i>Lampetra fluviatilis</i> (River Lamprey) [1099], <i>Alosa fallax fallax</i> (Twaite Shad) [1103], <i>Salmo salar</i> (Salmon) [1106], <i>Lutra lutra</i> (Otter) [1355] and <i>Phoca vitulina</i> (Common Seal) [1365]
Proximity to AFA(s) and Linkage	Slaney River Valley SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM09 (and UoM10) and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening. There are no AFAs from UoM09 within 15km of the Slaney River Valley SAC. There are two AFAs in UoM10 within 15km of the European site; the review of these AFAs will be undertaken in the UoM10 section.
Potential Impacts	Slaney River Valley SAC will not be impacted by any of the FRM methods proposed in UoM09. Further consideration is given to potential impacts from AFAs in UoM10 in that section.

Name: South Dublin Bay and River Tolka Estuary SPA Site Code: (IE004024)	
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Qualifying Interest(s)	Wetland and Waterbirds [A999], habitat supporting Species of Special Conservation Interest: Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Knot (<i>Calidris canutus</i>) [A143], Sanderling (<i>Calidris alba</i>) [A144], Dunlin (<i>Calidris alpina</i>) [A149], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Redshank (<i>Tringa totanus</i>) [A162], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Roseate Tern (<i>Sterna dougallii</i>) [A192], Common Tern (<i>Sterna hirundo</i>) [A193] and Arctic Tern (<i>Sterna paradisaea</i>) [A194]
Proximity to AFA(s) and Linkage	<p>There are 12 AFAs/HPWs within approximately 15km of the South Dublin Bay and River Tolka Estuary SPA, eight of which are in UoM09 and the remainder in UoM10. The AFAs in UoM09 with the potential to influence the South Dublin Bay and River Tolka Estuary SPA are: Clontarf (0.0km), Dublin City HPWs (0.0km), Lucan to Chapelizod (7.0km), Raheny (0.9km), Sandymount (0.0km), Santry (3.9km), Sutton & Baldoyle (4.3km) and Sutton & Howth North (5.0km).</p> <p>Ten additional AFAs, Baldonnel (19.7km), Celbridge (23.0km), Clane (c.32.7km), Hazelhatch (22.6km), Kilcock (c.31.2km), Leixlip (19.3km), Maynooth (c.25.8km), Naas (c.30.8km), Newbridge (c.41.4km) and Turnings/Killeenmore (c.27.9km) were also screened. These AFAs, although in excess of 15 linear km from the European site, are directly upstream of it and may therefore influence it.</p> <p>The AFAs of Sandymount and Clontarf are subject to coastal flood risk and immediately border the South Dublin Bay and River Tolka Estuary SPA. The implementation of coastal FRM methods at these AFAs has the potential to generate direct impacts on the qualifying interests of the South Dublin Bay and River Tolka Estuary SPA.</p> <p>The AFAs of Raheny, Sutton & Baldoyle and Sutton & Howth North, which are all subject to coastal flood risk only, also border Dublin Bay but adjoin the North Bull Island SPA, which is immediately adjacent to the South Dublin Bay and River Tolka Estuary SPA and which shares many of the same qualifying interests. There is potential for indirect impacts on the qualifying interests of the South Dublin Bay and River Tolka Estuary SPA from the implementation of coastal FRM methods at these AFAs.</p> <p>The Dublin City HPWs discharge directly into Dublin Bay. There exists the potential for direct impacts on the SPA from FRM methods in these HPWs.</p> <p>The AFAs of Lucan to Chapelizod and Santry are located on rivers upstream from Dublin Bay <10km and <5km upstream respectively from the European site (Lucan to Chapelizod is subject to coastal as well as fluvial flood risk). There is a risk of indirect impacts on the qualifying interests of South Dublin Bay and River Tolka Estuary SPA from the implementation of coastal and/or fluvial FRM methods at these AFAs.</p> <p>The AFAs of Baldonnel, Celbridge, Clane, Hazelhatch, Kilcock, Leixlip, Maynooth, Naas, Newbridge and Turnings/Killeenmore are all in the River Liffey catchment, with upstream distances from Dublin Bay of between c.23.5km (Leixlip) and c.61km (Newbridge). Potential indirect impacts of FRM methods at these AFAs are unlikely, but not impossible and as uncertainty remains, further assessment is recommended.</p> <p>The AFAs in UoM10 with the potential to influence the South Dublin Bay and River Tolka Estuary SPA are: Bray (9.7km), Greystones (15.1km), Loughlinstown (5.1km) and Old Connaught & Wilford (7.8km). The assessment of the potential impacts from AFAs in UoM10 has been undertaken in that section.</p>
Potential Impacts	<p>There exists the potential for direct impacts on the South Dublin Bay and River Tolka Estuary SPA from FRM methods at the Dublin City HPWs and from Sandymount and Clontarf AFAs.</p> <p>There exists the potential for indirect impacts on the South Dublin Bay and River Tolka Estuary SPA from FRM methods at Celbridge, Clane, Hazelhatch, Kilcock, Leixlip, Lucan to Chapelizod Maynooth, Naas, Newbridge, Raheny, Santry, Sutton & Baldoyle, Sutton & Howth North and Turnings/Killeenmore AFAs. Appropriate Assessment is required to determine the significance of these impacts.</p> <p>Consideration has been given to potential impacts from AFAs in UoM10 in that section.</p>

Name: South Dublin Bay SAC

Site Code: (IE000210)

Qualifying Interest(s)	Annex I Habitat: Mudflats and sandflats not covered by seawater at low tide [1140]
Proximity to AFA(s) and Linkage	<p>There are 12 AFAs/HPWs within approximately 15km of the South Dublin Bay SAC, eight of which are in UoM09 and the remainder in UoM10.</p> <p>The AFAs in UoM09 with the potential to influence the South Dublin Bay SAC are: Clontarf (2.0km), Dublin Bay HPWs (0.0km), Lucan to Chapelizod (8.0km), Raheny (2.9km), Sandymount (0.0km), Santry (6.8km), Sutton & Baldoyle (5.5km) and Sutton & Howth North (6.1km).</p> <p>Ten additional AFAs, Baldonnel (19.7km), Celbridge (23.0km), Clane (c.32.7km), Hazelhatch (22.6km), Kilcock (c.31.2km), Leixlip (19.3km), Maynooth (c.25.8km), Naas (c.30.8km), Newbridge (c.41.4km) and Turnings/Killeenmore (c.27.9km) were also screened. These AFAs, although in excess of 15 linear km from the European site, are directly upstream of it and may therefore influence it.</p> <p>Sandymount AFA is subject to coastal flood risk and immediately borders the South Dublin Bay SAC. The implementation of coastal FRM methods at this AFA has the potential to generate direct impacts on the qualifying interests of the South Dublin Bay SAC.</p> <p>The AFAs of Clontarf, Raheny, Sutton & Baldoyle and Sutton & Howth North, which are all subject to coastal flood risk only, also surround Dublin Bay but adjoin the North Dublin Bay SAC, which is immediately adjacent to the South Dublin Bay SAC and which shares its qualifying interest. There is potential for indirect impacts on the qualifying interests of the South Dublin Bay SAC from the implementation of coastal FRM methods at these AFAs, if the coastal processes in Dublin Bay are significantly changed.</p> <p>The Dublin City HPWs discharge directly into Dublin Bay. There exists the potential for direct impacts on the SAC from FRM methods in these HPWs.</p> <p>The AFAs of Lucan to Chapelizod and Santry are located on rivers upstream from Dublin Bay <10km and <5km upstream respectively from the European site (Lucan to Chapelizod is subject to coastal as well as fluvial flood risk). There is a risk of indirect impacts on the qualifying interests of South Dublin Bay SAC from the implementation of coastal and/or fluvial FRM methods at these AFAs.</p> <p>The AFAs of Baldonnel, Celbridge, Clane, Hazelhatch, Kilcock, Leixlip, Maynooth, Naas, Newbridge and Turnings/Killeenmore are all in the River Liffey catchment, with upstream distances from Dublin Bay of between c.23.5km (Leixlip) and c.61km (Newbridge). Potential indirect impacts of FRM methods at these AFAs are unlikely, but not impossible and as uncertainty remains, further assessment is recommended.</p> <p>The AFAs in UoM10 with the potential to influence the South Dublin Bay SAC are: Bray (9.8km), Greystones (15.2km), Loughlinstown (5.2km) and Old Connaught & Wilford (7.9km). The assessment of the potential impacts from AFAs in UoM10 has been undertaken in that section.</p>
Potential Impacts	<p>There exists the potential for direct impacts on the South Dublin Bay SAC from FRM methods at Sandymount AFA and the Dublin City HPWs.</p> <p>There exists the potential for indirect impacts on the South Dublin Bay SAC from FRM methods at Baldonnel, Celbridge, Clane, Clontarf, Hazelhatch, Kilcock, Leixlip, Lucan to Chapelizod, Maynooth, Naas, Newbridge, Raheny, Santry, Sutton & Baldoyle, Sutton & Howth North and Turnings/Killeenmore AFAs. Appropriate Assessment is required to determine the significance of these impacts.</p> <p>Consideration has been given to potential impacts from AFAs in UoM10 in that section.</p>

Name: The Long Derries Edenderry SAC Site Code: (IE000925)	
Qualifying Interest(s)	Annex I Habitat: Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(*important orchid sites) [6210]
Proximity to AFA(s) and Linkage	<p>The Long Derries, Edenderry SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM09 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There are no AFAs in UoM09 that are within 15km of the Long Derries, Edenderry SAC; the nearest AFAs are Clane (18.9km) and Newbridge (17.4km). On reviewing the datasets in the</p>

	area, no potential impact pathway was found between the European site and any of the AFAs in UoM09.
Potential Impacts	The Long Derries, Edenderry SAC will not be impacted by any of the FRM methods proposed in UoM09. Further consideration is given to potential impacts from AFAs in UoM07 in that section.

Name: Vale of Clara (Rathdrum Wood) SAC		Site Code: (IE000733)
Qualifying Interest(s)	Annex I Habitat: Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles [91A0],	
Proximity to AFA(s) and Linkage	<p>The Vale of Clara (Rathdrum Wood) SAC is located in UoM10, but it is also located within 15km of UoM09 and therefore has been included in the screening.</p> <p>There are no AFAs from UoM09 within 15km of the Vale of Clara (Rathdrum Wood) SAC. The nearest AFA is Blessington, 28km from the site. On reviewing the datasets in the area, no potential impact pathway was found between the European site and any of the AFAs in UoM09.</p>	
Potential Impacts	The Vale of Clara (Rathdrum Wood) SAC will not be impacted by any of the FRM methods proposed in UoM09. Further consideration is given to potential impacts from AFAs in UoM10 in that section.	

Name: Wicklow Mountains SAC		Site Code: (IE002122)
Qualifying Interest(s)	<p>Annex I Habitat: Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> [3130], Natural dystrophic lakes and ponds [3160], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], European dry heaths [4030], Alpine and Boreal heaths [4060], Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230], Blanket bogs (* if active bog) [7130], Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110], Calcareous rocky slopes with chasmophytic vegetation [8210], Siliceous rocky slopes with chasmophytic vegetation [8220] and Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</p> <p>Annex II Species, <i>Lutra lutra</i> (Otter) [1355],</p>	
Proximity to AFA(s) and Linkage	<p>Wicklow Mountains SAC is a large SAC, spread over a number of hydrometric areas including UoM09 and UoM10. There are 21 AFAs/HPWs in the Eastern CFRAMS Study area which are within 15km of the SAC, 11 in UoM09 and 10 in UoM10.</p> <p>UoM09</p> <p>The AFAs/HPWs in UoM09 with the potential to influence the Wicklow Mountains SAC are: Baldonnel (8.1km), Blessington (2.5km), Celbridge (14.2km), Clontarf (14.4km), Dublin City HPWs (3.5km), Hazelhatch (13.1km), Leixlip (14.6km), Lucan to Chapelizod (12.1km), Naas (10.8km), Sandymount (10.1km) and Turnings/Killeenmore (14.5km).</p> <p>The Wicklow Mountains SAC is the upland source catchment for the River Liffey and the Kings River tributary of the River Liffey. The AFAs of Blessington, Celbridge, Leixlip, and Lucan to Chapelizod are all located downstream from the Wicklow Mountains SAC on the River Liffey. The closest AFA, Blessington, is located on the Poulaphouca Reservoir impoundment and the other AFAs located on the River Liffey are all downstream of this impoundment. It is considered that impoundment presents a physical barrier to any connectivity between the upstream catchment in the SAC and the downstream AFAs/HPWs.</p> <p>The AFAs of Baldonnel, Hazelhatch, Naas, Sandymount and Turnings/Killeenmore are located on other tributaries of the River Liffey and have no hydraulic connectivity with the site, nor any connectivity by virtue of a biodiversity stepping stone or corridor. There is not considered to be a potential impact pathway between any of the AFAs in UoM09 and the Wicklow Mountains SAC.</p> <p>UoM10</p>	

	The AFAs in UoM10 with the potential to influence the Wicklow Mountains SAC are: Ashford/Rathnew (8.3km), Aughrim (10.1km), Avoca (13.8km), Bray (4.1km), Greystones (7.4km), Kilcoole (8.8km), Loughlinstown (7.8km), Newcastle (9.6km), Old Connaught & Wilford (4.9km) and Wicklow (12.4km).
Potential Impacts	<p>It is concluded that there is no potential impact pathway between the qualifying interests of the Wicklow Mountains SAC and any of the AFAs/HPWs in UoM09. Consequently the SAC has been removed from any further screening in UoM09.</p> <p>Further consideration is given to potential impacts from AFAs in UoM10 in that section.</p>

Name: Wicklow Mountains SPA		Site Code: (IE004040)
Qualifying Interest(s)	Species of Special Conservation Interest: Merlin (<i>Falco columbarius</i>) [A098], Peregrine (<i>Falco peregrinus</i>) [A103],	
Proximity to AFA(s) and Linkage	<p>Wicklow Mountains SPA is a large SPA, spread over a number of hydrometric areas including UoM09 and UoM10. There are 17 AFAs/HPWs in the Eastern CFRAMS Study area which are within 15km of the SAC; 6 in UoM09 and 10 in UoM10.</p> <p>UoM09</p> <p>The AFAs in UoM09 with the potential to influence the Wicklow Mountains SPA are: Baldonnel (11.6km), Blessington (5.5km), Clontarf (14.7km), Dublin City HPWs (3.7km), Lucan to Chapelizod (12.1km), Naas (13.6km) and Sandymount (10.3km).</p> <p>The Wicklow Mountains SPA is the upland source catchment for the River Liffey and the Kings River tributary of the River Liffey. The AFAs of Blessington and Lucan to Chapelizod are located downstream from the Wicklow Mountains SAC on the River Liffey. The closest AFA, Blessington, is located on the Poulaphouca Reservoir impoundment and the other AFAs are downstream of this impoundment. It is considered that impoundment presents a physical barrier to any connectivity between the upstream catchment in the SPA and the downstream AFAs/HPWs.</p> <p>The AFAs of Baldonnel, Naas and Sandymount are located on other tributaries of the River Liffey and have no hydraulic connectivity with the site, nor any connectivity by virtue of a biodiversity stepping stone or corridor. Clontarf is a coastal AFA and subject to coastal flood risk only. There is not considered to be a potential impact pathway between any of the AFAs in UoM09 and the Wicklow Mountains SPA.</p> <p>UoM10</p> <p>The AFAs in UoM10 with the potential to influence the Wicklow Mountains SPA are: Ashford/Rathnew (10.3km), Aughrim (10.1km), Avoca (13.8km), Bray (4.6km), Greystones (7.1km), Kilcoole (8.8km), Loughlinstown (7.9km), Newcastle (9.6km), Old Connaught & Wilford (5.4km) and Wicklow (14.0km)</p>	
Potential Impacts	<p>It is concluded that there is no potential impact pathway between the qualifying interests of the Wicklow Mountains SPA and any of the AFAs/HPWs in UoM09. Consequently the SPA has been removed from any further screening in UoM09.</p> <p>Further consideration is given to potential impacts from AFAs in UoM10 in that section.</p>	

UOM10 SCREENING TABLES

Name: Baldoye Bay SAC		Site Code: (IE000199)
Qualifying Interest(s)	Annex I Habitats: Mudflats and sandflats not covered by seawater at low tide [1140], Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] and Salicornia and other annuals colonizing mud and sand [1310]	
Proximity to AFA(s) and Linkage	Baldoye Bay SAC is located in UoM09, but it is also located within 15km of UoM10 and therefore has been included in the screening. There are no AFAs from UoM10 within 15km of the SAC boundary. There are seven AFAs in UoM09 within 15km of the European site; the review of these AFAs has been undertaken in the UoM09 section.	
Potential Impacts	Baldoye Bay SAC will not be impacted by any of the FRM methods proposed in UoM09. Further consideration is given to impacts from AFAs in UoM10 in that section.	

Name: Baldoye Bay SPA		Site Code: (IE004016)
Qualifying Interest(s)	Wetland and Waterbirds [A999] supporting populations of Species of Special Conservation Interest: Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Shelduck (<i>Tadorna tadorna</i>) [A048], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Grey Plover (<i>Pluvialis squatarola</i>) [A141] and Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]	
Proximity to AFA(s) and Linkage	Baldoye Bay SPA is located in UoM09, but it is also located within 15km of UoM10 and therefore has been included in the screening. There are no AFAs from UoM10 within 15km of the SPA boundary. There are seven AFAs in UoM09 within 15km of the European site; the review of these AFAs has been undertaken in the UoM09 section.	
Potential Impacts	Baldoye Bay SPA will not be impacted by any of the FRM methods proposed in UoM10. Further consideration is given to potential impacts from AFAs in UoM09 in that section.	

Name: Ballyman Glen SAC		Site Code: (IE000713)
Qualifying Interest(s)	Annex I Habitat: Alkaline fens [7230] and Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]	
Proximity to AFA(s) and Linkage	<p>There are six AFAs from UoM10 within 15km of Ballyman Glen SAC. These are: Bray (0.0km), Greystones (5.5km), Kilcoole (10.0km), Loughlinstown (4.6km), Newcastle (13.7km) and Old Connaught & Wilford (0.0km).</p> <p>There is one AFA from UoM09 within 15km of the SAC, Sandymount (12.3km), this AFA was screened out in the UoM09 screening exercise.</p> <p>The AFAs of Greystones, Kilcoole, Loughlinstown and Newcastle are all coastally- located (Greystones and Loughlinstown are subject to coastal flood risk in addition to fluvial flood risk) and in separate river catchments with no hydraulic connectivity to the Ballyman Glen SAC. It is concluded that no potential impact pathway exists between these AFAs and the European site, nor is any connectivity evident by virtue of a biodiversity stepping stone or corridor.</p> <p>The SAC is partly within the AFAs of Bray and Old Connaught & Wilford. There is potential for direct impact on the qualifying interest of Ballyman Glen SAC from FRM methods at these AFAs.</p>	
Potential Impacts	There exists the potential for direct impacts on the qualifying interests of Ballyman Glen SAC from FRM methods at Bray and Old Connaught & Wilford AFAs. Appropriate Assessment is	

	required to assess the significance of these impacts.
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Name: Bray Head SAC		Site Code: (IE000714)
Qualifying Interest(s)	Annex I Habitats: Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] and European dry heaths [4030]	
Proximity to AFA(s) and Linkage	<p>There are seven AFAs from UoM10 within 15km of Bray Head SAC. These are: Ashford/Rathnew (14.8km), Bray (0.0km), Greystones (0.0km), Kilcoole (3.6km), Loughlinstown (5.5km), Newcastle (8.3km) and Old Connaught & Wilford (2.1km).</p> <p>The AFAs of Ashford/Rathnew, Kilcoole, Loughlinstown and Newcastle are all coastally-located (Ashford/Rathnew and Loughlinstown are subject to coastal flood risk in addition to fluvial flood risk) and are separated from Bray Head SAC by several km of open coastal waters. It is concluded that the distance between the AFAs is such that no potential impact pathway exists between these AFAs and the European site, nor is any connectivity evident by virtue of a biodiversity stepping stone or corridor.</p> <p>The AFA of Old Connaught & Wilford is 2.1km along the coast from the SAC. The main pressures on the qualifying interests are described in the context of increased/enriched water seepage down the cliff face from development near cliff tops. In this context, it is considered that there is no potential impact pathway between the AFA and the qualifying interests of the Bray Head SAC.</p> <p>The AFAs of Bray and Greystones are partly within the Bray Head SAC. There is potential for direct impact on the qualifying interests of Bray Head SAC from FRM methods at these AFAs.</p>	
Potential Impacts	There exists the potential for direct impacts on the qualifying interests of Bray Head SAC from FRM methods at Bray and Greystones AFAs. Appropriate Assessment is required to assess the significance of these impacts.	

Name: Buckroney-Brittas Dunes and Fen SAC		Site Code: (IE000729)
Qualifying Interest(s)	Annex I Habitats: Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130], Embryonic shifting dunes [2110], Humid dune slacks [2190], Alkaline fens [7230], Annual vegetation of drift lines [1210], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120], Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>) [2150], Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salix arenariae</i>) [2170], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] and Perennial vegetation of stony banks [1220]	
Proximity to AFA(s) and Linkage	<p>Buckroney-Brittas Dunes and Fen SAC comprises two main sand dune systems, Brittas Bay and Buckroney Dunes, connected on the coast by the rocky headland of Mizen Head. The dunes have cut off the outflow of a small river at Mizen Head and a fen, Buckroney Fen, has developed. There are four AFAs within 15km of Buckroney-Brittas Dunes and Fen SAC. These are: Ashford/Rathnew (10.1km), Aughrim (13.5km), Avoca (5.8km) and Wicklow (6.8km).</p> <p>The AFAs of Aughrim and Avoca are located upstream on the Aughrim and Avoca rivers respectively, which are in a separate catchment to the watercourses passing through the SAC with no hydraulic connectivity. The Avoca river discharges into the sea at Arklow, approximately 5km south of the boundary of the Buckroney-Brittas Dunes and Fen SAC. Due to the distance between the discharge point and the SAC, across open coastal waters, there is considered to be no potential impact pathway between Avoca and Aughrim AFAs and the qualifying interests of Buckroney-Brittas Dunes and Fen SAC.</p> <p>The AFAs of Ashford/Rathnew and Wicklow are subject to both fluvial and coastal flood risk. These are separated from the Buckroney-Brittas Dunes and Fen SAC by c. 9km of open coastal waters and Wicklow Head. Due to the distance between the AFAs and the SAC, across open coastal waters, there is considered to be no potential impact pathway between Ashford/Rathnew and Wicklow AFAs and the qualifying interests of Buckroney-Brittas Dunes and Fen SAC.</p>	

Potential Impacts	As there is no potential impact pathway between the qualifying interests of the Buckroney-Brittis Dunes and Fen SAC and the AFAs in UoM10, it has been concluded that the SAC will not be impacted by any of the FRM methods proposed Eastern CFRAM Study. Consequently the SAC has been removed from any further screening.
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Name: Carriggower Bog SAC		Site Code: (IE000716)
Qualifying Interest(s)	Annex I Habitat: Transition mires and quaking bogs [7140]	
Proximity to AFA(s) and Linkage	<p>There are eight AFAs in UoM10 within 15km of the Carriggower Bog SAC. These are: Ashford/Rathnew (9.0km), Bray (8.0km), Greystones (5.0km), Kilcoole (5.0km), Loughlinstown (15.0km), Newcastle (5.3km), Old Connaught & Wilford (10.0km) and Wicklow (13.0km).</p> <p>A review of the hydraulic and environmental data in the area shows that Carriggower Bog SAC is hydraulically connected to Ashford/Rathnew AFA via the Vartry River and Vartry Reservoirs. Carriggower Bog SAC is also hydraulically linked to Kilcoole AFA via the Kilmullin River. Carriggower SAC is upstream of the Vartry Reservoir, the impoundment of which is considered to pose a barrier to any impact pathway between the AFA and the SAC. The SAC is in the uppermost reaches of the Kilmullin River catchment and is approximately 6.8km upstream from Kilcoole AFA. There is no possibility of any upstream / upcatchment FRM methods being adopted for Kilcoole AFA that would have any impact on the qualifying interests or conservation objectives of Carriggower Bog SAC.</p> <p>The AFAs of Bray, Greystones, Loughlinstown, Newcastle, Old Connaught & Wilford and Wicklow are all coastally located and have no hydraulic connectivity with the Carriggower Bog SAC, nor is any connectivity present via a biodiversity stepping stone or corridor. It is considered that no potential impact pathway exists between these AFAs and the European Site.</p>	
Potential Impacts	As there is no potential impact pathway between the qualifying interests of the Carriggower Bog SAC and the AFAs in UoM10, it has been concluded that the SAC will not be impacted by any of the FRM methods proposed Eastern CFRAM Study. Consequently the SAC has been removed from any further screening.	

Name: Dalkey Islands SPA		Site Code: (IE004172)
Qualifying Interest(s)	Species of Special Conservation Interest: Roseate Tern (<i>Sterna dougallii</i>) [A192], Common Tern (<i>Sterna hirundo</i>) [A193], Arctic Tern (<i>Sterna paradisaea</i>) [A194]	
Proximity to AFA(s) and Linkage	<p>Dalkey Islands SPA is a short distance offshore from UoM09 but it is also located within 15km of UoM10 and therefore has been included in the screening. . There are 12 AFAs within 15km of Dalkey Islands SPA; seven in UoM09 and five in UoM10.</p> <p>UoM09</p> <p>The AFAs in UoM09 with potential to influence the SPA are: Clontarf (10.7km), Dublin City HPWs (2.4km), Raheny (11.0km), Sandymount (8.4km), Santry (15.5km), Sutton & Baldoyle (12.2km) and Sutton & Howth North (11.1km). The tern species which are the qualifying interests of the SPA and which use the Dalkey Islands as a roosting/staging area, interact with and may originate from breeding sites at Rockabill and South Dublin Bay. The implementation of coastal FRM methods at Sandymount AFA, which borders South Dublin Bay and River Tolka Estuary SPA and the Dublin City HPWs, which discharge into the southern part of Dublin Bay, has the potential for indirect impacts on the qualifying interests of the Dalkey Islands SPA.</p> <p>For the AFAs of Clontarf, Raheny, Santry, Sutton & Baldoyle and Sutton & Howth North, it is considered that the distances involved are such that no impact pathway exists between the European site and these AFAs.</p> <p>UoM10</p> <p>The AFAs in UoM10 with potential to influence the SPA are: Bray (6.5km), Greystones (11.4km), Kilcoole (15.6km), Loughlinstown (2.8km) and Old Connaught & Wilford (4.5km). All of these AFAs are coastally-located and Bray, Greystones and Loughlinstown are subject to</p>	

	coastal flood risk as well as fluvial. These AFAs, the closest of which is Loughlinstown, 2.8km from the site, are separated from the Dalkey Islands by open coastal waters with strong tidal currents present in Dalkey Sound and Muglins Sound. It is considered that the deep waters and strong currents surrounding the islands would rule out the potential for an impact pathway to be present between the AFAs in UoM10 and the SPA. No impacts from the implementation of FRM methods in these five AFAs, such as the alteration of flows within the affected watercourses, alterations to the sediment regime where those watercourses discharge into the Irish Sea or impacts from the implementation from coastal FRM methods, are predicted to reach the qualifying interests of the Dalkey Islands SPA.
Potential Impacts	It is considered that there is no potential impact pathway between the qualifying interests of the Dalkey Islands SPA and the AFAs of Bray, Greystones, Kilcoole, Loughlinstown and Old Connaught & Wilford in UoM10. Dalkey Islands SPA will therefore not be impacted by any of the FRM methods proposed in UoM10. Further consideration has been given to potential impacts from AFAs in UoM09 in that section and Appropriate Assessment has been recommended.

Name: Deputy's Pass Nature Reserve SAC Site Code: (IE000717)	
Qualifying Interest(s)	Annex I Habitat: Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles [91A0]
Proximity to AFA(s) and Linkage	There are 5 AFAs within 15km of Deputy's Pass Nature Reserve SAC. These are: Ashford/Rathnew (5.5km), Aughrim (13.9km), Avoca (9.9km), Newcastle (12.6km) and Wicklow (5.3km). Examination of the available watercourse and environmental data shows that Deputy's Pass Nature Reserve SAC is contained within the catchment of the Potter's River, which has no hydraulic connectivity with any of the other catchments in which the surrounding AFAs are located. It is concluded that no potential impact pathway exists between any of the AFAs in UoM10 and the Deputy's Pass Nature Reserve SAC.
Potential Impacts	As there is no potential impact pathway between the qualifying interests of the Deputy's Pass Nature Reserve SAC and any of the AFAs in UoM10, it has been concluded that the SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently the SAC has been removed from any further screening.

Name: Glen of the Downs SAC Site Code: (IE000719)	
Qualifying Interest(s)	Annex I Habitat: Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles [91A0]
Proximity to AFA(s) and Linkage	Glen of the Downs is a semi-natural oak wood situated within a steep valley created by a former glacial overflow channel. There are 8 AFAs within 15km of the SAC. These are: Ashford/Rathnew (11.3km), Bray (3.5km), Greystones (0.5km), Kilcoole (2.0km), Loughlinstown (11.0km), Newcastle (5.2km), Old Connaught & Wilford (6.2km), Wicklow (14.2km). All of these AFAs are coastally-located and with the exception of Kilcoole and Newcastle are subject to coastal flood risk as well as fluvial. The boundary of the Dublin City HPWs is 14.3km from Glen of the downs SAC. Examination of the available watercourse and environmental data shows that Glen of the Downs SAC is on the Three Trout River, a stream which discharges to the sea via Greystones AFA. There exists the possibility of potential impacts on the SAC if upcatchment/upstream FRM methods are implemented at this AFA. Three Trout River has no hydraulic connectivity with any of the other catchments in which the surrounding AFAs/HPWs are located, nor is there any connectivity by virtue of a biodiversity corridor or stepping stone between Glen of the Downs SAC and any other AFA. It is concluded that there is no potential impact pathway between Glen of the Downs SAC and the AFAs of Bray, Kilcoole, Loughlinstown, Newcastle, Old Connaught & Wilford and Wicklow, or the Dublin City HPWs.

Potential Impacts	<p>There is no potential impact pathway between Glen of the Downs SAC and the AFAs of Bray, Kilcoole, Loughlinstown, Newcastle, Old Connaught & Wilford and Wicklow, or the Dublin City HPWs in UoM09.</p> <p>There exists the potential for direct impacts on the qualifying interest of Glen of the Downs SAC from the implementation of FRM methods at Greystones AFA; Appropriate Assessment is required to assess the significance of these impacts.</p>
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Name: Glenasmole Valley SAC		Site Code: (IE001209)
Qualifying Interest(s)	Annex I Habitat: Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>)(*important orchid sites) [6210], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinia caerulea</i>) [6410] and Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]	
Proximity to AFA(s) and Linkage	<p>There are 12 AFAs within 15km of Glenasmole Valley SAC; nine in UoM09 and three in UoM10.</p> <p>UoM09</p> <p>The AFAs in UoM09 with potential to influence the SAC are: Baldonnel (7.0km), Blessington (12.6km), Celbridge (13.0km), Dublin City HPWs (2.1km), Hazelhatch (12.0km), Leixlip (12.9km), Lucan to Chapelizod (9.7km), Sandymount (12.0km) and Turnings/Killeenmore (14.8km). The Glenasmole Valley SAC is located in the environs of the Glenasmole Reservoirs, which are impounding reservoirs on the River Dodder. With the exception of Sandymount, none of the AFAs in UoM09 have any hydraulic connectivity with the Dodder catchment, nor any connectivity by virtue of a biodiversity corridor or stepping stone. Sandymount AFA is at the downstream limit of the River Dodder, however it is at risk of coastal flooding only, therefore there is no potential for FRM methods at this AFA to have any impact on the qualifying interests of the SAC. The boundary of the Dublin City HPWs, which incorporates the River Dodder, is 2.1km downstream of the SAC boundary. The River Dodder has been subject to a separate AA and NIS which presented a conclusion of no significant impacts from FRM methods in its catchment.</p> <p>UoM10</p> <p>The AFAs in UoM10 with potential to influence the SAC are: Bray (13.2km), Loughlinstown (14.4km) and Old Connaught & Wilford (13.6km). These AFAs are in entirely separate catchments with no hydraulic connectivity to the SAC, nor is any connectivity evident by virtue of a biodiversity stepping stone or corridor. It is concluded that there is no potential impact pathway between Glenasmole Valley SAC and any of the AFAs in UoM10.</p>	
Potential Impacts	<p>It is considered that there is no potential impact pathway between the qualifying interests of the Glenasmole Valley SAC and any of the AFAs in UoM09 or UoM10. It has therefore been concluded that the SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study and as a consequence the SAC has been removed from any further screening.</p>	

Name: Holdenstown Bog SAC		Site Code: (IE001757)
Qualifying Interest(s)	Annex I Habitat: Transition mires and quaking bogs [7140]	
Proximity to AFA(s) and Linkage	<p>Holdenstown Bog SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM10 and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There are no AFAs within 15km of Holdenstown Bog SAC; the nearest AFA is Aughrim, c. 24km away. There is no potential impact pathway between Aughrim AFA and this SAC, or from any of the other AFAs in UoM10.</p>	
Potential Impacts	<p>As there is no potential impact pathway between the qualifying interests of Holdenstown Bog SAC and any of the AFAs in the Eastern CFRAMS Study area, it has been concluded that the SAC will not be impacted by the Eastern CFRAM Study. Consequently, the SAC has been</p>	

	removed from any further screening.
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Name: Howth Head Coast SPA		Site Code: (IE004113)
Qualifying Interest(s)	Species of Special Conservation Interest: Kittiwake (<i>Rissa tridactyla</i>) [A188]	
Proximity to AFA(s) and Linkage	<p>There are nine AFAs/HPWs within 15km of Howth Head Coast SPA; seven in UoM09 and two in UoM10.</p> <p>UoM09</p> <p>The AFAs in UoM09 with potential to influence the SPA are: Clontarf (8.5km), Dublin City HPWs (2.6km), Raheny (6.2km), Sandymount (10.9km), Santry (10.9km), Sutton & Baldoyle (4.4km) and Sutton & Howth North (2.6km). The assessment of the potential impacts from AFAs in UoM09 has been undertaken in that section.</p> <p>UoM10</p> <p>The AFAs in UoM10 with potential to influence the SPA are: Loughlinstown (12.8km) and Old Connaught & Wilford (14.8km). Due to the separation distance between the AFAs, which are located on the opposite (southern) side of Dublin Bay, separated by open coastal waters, no impacts from the implementation of fluvial or coastal FRM methods in Loughlinstown and Old Connaught & Wilford AFAs are predicted to occur on the qualifying interests of Howth Head Coast SPA.</p>	
Potential Impacts	<p>It is considered that there is no potential impact pathway between the qualifying interests of Howth Head Coast SPA and any of the AFAs UoM10. The consideration of potential impacts from AFAs in UoM09 has been undertaken in that section and an appropriate Assessment has been recommended.</p>	

Name: Howth Head SAC		Site Code: (IE000202)
Qualifying Interest(s)	Annex I Habitat: Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] and European dry heaths [4030]	
Proximity to AFA(s) and Linkage	<p>There are eight AFAs/HPWs within 15km of Howth Head Coast SAC; seven in UoM09 and two in UoM10.</p> <p>UoM09</p> <p>The AFAs in UoM09 with potential to influence the SAC are: Clontarf (5.8km), Dublin City HPWs (0.8km), Raheny (3.6km), Sandymount (8.6km), Santry (8.5km), Sutton & Baldoyle (2.4km) and Sutton & Howth North (0.8km).</p> <p>The qualifying interests for the SAC are not intertidal, though vegetated sea cliffs are classed as water-dependent. The main pressures on the qualifying interests are described in the context of increased/enriched water seepage down the cliff face from development near cliff tops. In this respect no potential impacts from the implementation of coastal FRM methods in Clontarf, Raheny, Sandymount, Sutton & Baldoyle or Sutton & Howth North AFAs and fluvial FRM methods in Santry AFA or the Dublin City HPWs are predicted to occur on the qualifying interests of the Howth Head SAC.</p> <p>UoM10</p> <p>The AFAs in UoM10 with potential to influence the SAC are: Loughlinstown (12.3km) and Old Connaught & Wilford (14.6km). Due to the separation distance between the AFAs, which are located on the opposite (southern) side of Dublin Bay, separated by open coastal waters, no impacts from the implementation of fluvial or coastal FRM methods in Loughlinstown and Old Connaught & Wilford AFAs are predicted to occur on the qualifying interests of Howth Head SAC.</p>	
Potential Impacts	<p>It is considered that there is no potential impact pathway between the qualifying interests of Howth Head SAC and any of the AFAs/HPWs in UoM09 or UoM10. It has therefore been concluded that the SAC will not be impacted by any of the FRM methods proposed in the</p>	

	Eastern CFRAM Study and as a consequence the SAC has been removed from any further screening.
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Name: Ireland's Eye SAC		Site Code: (IE002193)
Qualifying Interest(s)	Annex I Habitat: Perennial vegetation of stony banks [1220] and Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	
Proximity to AFA(s) and Linkage	Ireland's Eye is a small island approx. 1.5km offshore from Howth Head in UoM09. Although it is considered part of UoM09 it is located within 15km of UoM10 and therefore has been included in the screening. There are no AFAs from UoM10 within 15km of Ireland's Eye SAC; the nearest AFA is Loughlinstown, c.17km away. There is no potential impact pathway between Loughlinstown AFA and this SAC, or from any of the other AFAs in UoM10.	
Potential Impacts	It is considered that there is no potential impact pathway between the qualifying interests of Ireland's Eye SAC and any of the AFAs in the Eastern CFRAM Study Area. It has therefore been concluded that the SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study and as a consequence the SAC has been removed from any further screening.	

Name: Ireland's Eye SPA		Site Code: (IE004117)
Qualifying Interest(s)	Species of Special Conservation Interest: Cormorant (<i>Phalacrocorax carbo</i>) [A017], Herring Gull (<i>Larus argentatus</i>) [A184], Kittiwake (<i>Rissa tridactyla</i>) [A188], Guillemot (<i>Uria aalge</i>) [A199], Razorbill (<i>Alca torda</i>) [A200]	
Proximity to AFA(s) and Linkage	Ireland's Eye is a small island approx. 1.5km offshore from Howth Head in UoM09. Although it is considered part of UoM09 it is located within 15km of UoM10 and therefore has been included in the screening. There are no AFAs from UoM10 within 15km of Ireland's Eye SPA; the nearest AFA is Loughlinstown, c.16.5km away. There is no potential impact pathway between Loughlinstown AFA and this SPA, or from any of the other AFAs in UoM10.	
Potential Impacts	It is considered that there is no potential impact pathway between the qualifying interests of Ireland's Eye SPA and any of the AFAs in the Eastern CFRAM Study Area. It has therefore been concluded that the SPA will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study and as a consequence the SPA has been removed from any further screening.	

Name: Kilpatrick Sandhills SAC		Site Code: (IE001742)
Qualifying Interest(s)	Annex I Habitat: Annual vegetation of drift lines [1210], Embryonic shifting dunes [2110], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120], Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] and Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>) [2150].	
Proximity to AFA(s) and Linkage	Kilpatrick Sandhills SAC is at the southernmost extent of the Eastern CFRAM Study area. There is one AFA from UoM10 located within 15km from the SAC – Avoca (12.5km). The Avoca River discharges unto the sea approximately 6.5km north of Kilpatrick Sandhills SAC and Avoca AFA is around 10km upstream on the river. Due to their relative geographic locations, there would be no potential connectivity between Avoca AFA and the qualifying interests of the Kilpatrick Sandhills SAC.	

Potential Impacts	It is considered that there is no potential impact pathway between the qualifying interests of Kilpatrick Sandhills SAC and Avoca AFA, or any of the other AFAs in the Eastern CFRAM Study Area. It has therefore been concluded that the SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study and as a consequence the SAC has been removed from any further screening.
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Name: Knocksink Wood SAC		Site Code: (IE000725)
Qualifying Interest(s)	Annex I Habitat: Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220] and Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) [91E0]	
Proximity to AFA(s) and Linkage	<p>There are six AFAs from UoM10 within 15km of Knocksink Wood SAC. These are: Bray (0.7km), Greystones (6.5km), Kilcoole (10.4km), Loughlinstown (5.6km), Newcastle (13.7km), Old Connaught & Wilford (1.7km). There is also one AFA, Sandymount (11.6km) and the Dublin City HPWs (5.3km), from UoM09 within 15km of the site - these have already been reviewed and screened out in the UoM09 assessment.</p> <p>Knocksink Wood SAC is on the Glencullen River, which runs adjacent to the boundary of the Bray AFA before joining the Dargle River where it then passes through Bray AFA before discharging into the Irish Sea. There exists the possibility of potential impacts on the SAC if upcatchment/upstream FRM methods are implemented at Bray AFA.</p> <p>The AFAs of Greystones, Kilcoole, Loughlinstown and Newcastle are coastally-located and are unconnected to the Glencullen/Dargle River catchments. The AFA of Old Connaught & Wilford is indirectly connected to the Dargle River via a stream which rises in the hillside above Ballyman Glen and passes along the AFA's southwestern boundary before joining the River Dargle in Bray. However, there is considered to be no potential impact pathway between Old Connaught & Wilford AFA and Knocksink Wood SAC.</p>	
Potential Impacts	<p>There is no potential impact pathway between Knocksink Wood SAC and the AFAs of Greystones, Kilcoole, Loughlinstown, Newcastle and Old Connaught & Wilford.</p> <p>There exists the potential for direct impacts on the qualifying interests of Knocksink Wood SAC from the implementation of FRM methods at Bray AFA; Appropriate Assessment is required to assess the significance of these impacts.</p>	

Name: Magherabeg Dunes SAC		Site Code: (IE001766)
Qualifying Interest(s)	Annex I Habitat: Annual vegetation of drift lines [1210], Embryonic shifting dunes [2110], Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130], Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] and Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>) [2150]	
Proximity to AFA(s) and Linkage	<p>There are four AFAs within 15km of Magherabeg Dunes SAC. These are: Ashford/Rathnew (6.7km), Avoca (12.7km), Newcastle (13.8km) and Wicklow (3.0km).</p> <p>Avoca and Newcastle AFAs are subject to fluvial flooding only, no potential impacts are predicted to occur on the qualifying interests of the SAC as they are not susceptible to any potential alterations of flow from the Avoca or Newcastle River, or alterations to the sediment regime at the mouth of the Avoca or Newcastle rivers.</p> <p>The AFAs of Ashford/Rathnew and Wicklow are subject to both coastal and fluvial flooding. These AFAs are separated from Magherabeg Dunes SAC by approximately 6km of coastline, including Wicklow Head. No potential impacts are predicted to occur on the qualifying interests of the SAC from fluvial FRM methods as they are not susceptible to any potential alterations of flow from the Vartry, Rathnew, Burkeen, Ballynerin or Ballyguile Rivers, or alterations to the sediment regime at the mouth of these rivers. No potential impacts are predicted to occur on the qualifying interests of the SAC from the implementation of coastal FRM methods, as the AFAs are in a separate coastal sediment cell (for which Wicklow Head forms the boundary) from the SAC.</p>	

Potential Impacts	It is considered that there is no potential impact pathway between the qualifying interests of Magherabeg Dunes SAC and any of the AFAs in the Eastern CFRAM Study Area. It has therefore been concluded that the SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study and as a consequence the SAC has been removed from any further screening.
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Name: North Bull Island SPA Site Code: (IE004006)	
Qualifying Interest(s)	Wetland and Waterbirds [A999] habitat supporting Species of Special Conservation Interest: Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Shelduck (<i>Tadorna tadorna</i>) [A048], Teal (<i>Anas crecca</i>) [A052], Pintail (<i>Anas acuta</i>) [A054], Shoveler (<i>Anas clypeata</i>) [A056], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Knot (<i>Calidris canutus</i>) [A143], Sanderling (<i>Calidris alba</i>) [A144], Dunlin (<i>Calidris alpina</i>) [A149], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Curlew (<i>Numenius arquata</i>) [A160], Redshank (<i>Tringa totanus</i>) [A162], Turnstone (<i>Arenaria interpres</i>) [A169], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]
Proximity to AFA(s) and Linkage	<p>There are 11 AFAs within 15km of North Bull Island SPA. Eight AFAs are in UoM09 - Clontarf (0.0km), Dublin City HPWs (0.0km), Lucan to Chapelizod (10.1km), Raheny (0.0km), Sandymount (3.5km), Santry (4.5km), Sutton & Baldoyle (0.0km) and Sutton & Howth North (0.0km).</p> <p>Five additional AFAs, Baldonnel (19.7km), Celbridge (23.0km), Hazelhatch (22.6km), Leixlip (19.3km) and Maynooth (25.8km) were also screened. These AFAs, although in excess of 15 linear km from the European site, are directly upstream of it and may therefore influence it. The assessment of the potential impacts from AFAs in UoM09 has been undertaken in that section.</p> <p>Three AFAs are in UoM10: Bray (15.1km), Loughlinstown (10.5km) and Old Connaught & Wilford (13.0km).</p> <p>The AFAs of Bray, Loughlinstown (both subject to coastal as well as fluvial flood risk) and Old Connaught & Wilford are located on the coastline south of Dublin, and are separated from Dublin Bay by Sorrento Point and the Dalkey Islands. Due to the distance between these AFAs and the North Bull Island, there is considered to be no potential impact pathway between the sites and no adverse impacts to the qualifying interests of North Bull Island SPA are expected to arise, either from the alteration of flows within the affected watercourses, from alterations to the sediment regime where those watercourses discharge into St George's Channel or from the implementation of coastal flood protection measures.</p>
Potential Impacts	There is no potential impact pathway between the qualifying interests of North Bull Island SPA and any of the AFAs in UoM10. No further screening is required in the UoM10 assessment. The consideration of potential Impacts from AFAs in UoM09 has been undertaken in that section.

Name: North Dublin Bay SAC Site Code: (IE000206)	
Qualifying Interest(s)	<p>Annex I Habitats: Mudflats and sandflats not covered by seawater at low tide [1140], Annual vegetation of drift lines [1210], Salicornia and other annuals colonising mud and sand [1310], Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Embryonic shifting dunes [2110], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120], Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] and Humid dune slacks [2190]</p> <p>Annex II Species: <i>Petalophyllum ralfsii</i> (Petalwort) [1395]</p>
Proximity to AFA(s) and Linkage	There are 11 AFAs within 15km of North Dublin Bay SAC. Eight AFAs are in UoM09 - Clontarf (0.0km), Dublin City HPWs (0.0km), Lucan to Chapelizod (10.1km), Raheny (0.0km), Sandymount (3.5km), Santry (4.5km), Sutton & Baldoyle (0.0km) and Sutton & Howth North

	<p>(0.0km).</p> <p>Five additional AFAs, Baldonnel (19.7km), Celbridge (23.0km), Hazelhatch (22.6km), Leixlip (19.3km) and Maynooth (25.8km) were also screened. These AFAs, although in excess of 15 linear km from the European site, are directly upstream of it and may therefore influence it. The assessment of the potential impacts from AFAs in UoM09 has been undertaken in that section.</p> <p>Three AFAs are in UoM10: Bray (15.1km), Loughlinstown (10.5km) and Old Connaught & Wilford (13.1km).</p> <p>The AFAs of Bray, Loughlinstown (both subject to coastal as well as fluvial flood risk) and Old Connaught & Wilford are located on the coastline south of Dublin, and are separated from Dublin Bay by Sorrento Point and the Dalkey Islands. Due to the distance between these AFAs and the North Dublin Bay SAC, there is considered to be no potential impact pathway between the sites and no adverse impacts to the qualifying interests of North Dublin Bay SAC are expected to arise, either from the alteration of flows within the affected watercourses, from alterations to the sediment regime where those watercourses discharge into St George's Channel or from the implementation of coastal flood protection measures.</p>
Potential Impacts	<p>There is no potential impact pathway between the qualifying interests of North Dublin Bay SAC and any of the AFAs in UoM10. No further screening is required in the UoM10 assessment. The consideration of potential Impacts from AFAs in UoM09 has been undertaken in that section.</p>

Name: Poulaphouca Reservoir SPA Site Code: (IE004063)	
Qualifying Interest(s)	Species of Special Conservation Interest: Greylag Goose (<i>Anser anser</i>) [A043] and Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183]
Proximity to AFA(s) and Linkage	<p>Poulaphouca Reservoir SPA is located in UoM09. However, as it is located within 15km of UoM10 it has the potential to be influenced by AFAs in UoM10 and therefore has been screened.</p> <p>There are no AFAs within 15km of Poulaphouca Reservoir SPA; the nearest AFA is Bray, 21.6km away. There is no potential impact pathway between Bray AFA and the qualifying interests of this SPA, or from any of the other AFAs in UoM10.</p>
Potential Impacts	<p>There is no potential impact pathway between the qualifying interests of Poulaphouca Reservoir SPA and any of the AFAs in UoM10. No further screening is required in the UoM10 assessment. The consideration of potential Impacts from AFAs in UoM09 has been undertaken in that section.</p>

Name: Red Bog, Kildare SAC Site Code: (IE000397)	
Qualifying Interest(s)	Annex I Habitat: Transition mires and quaking bogs [7140]
Proximity to AFA(s) and Linkage	<p>Red Bog, Kildare SAC is located in UoM09. However, as it is located within 15km of UoM10 it has the potential to be influenced by AFAs in UoM10 and therefore has been screened.</p> <p>There are no AFAs within 15km of Red Bog, Kildare SAC; the nearest AFA is Bray, 24.6km away. There is no potential impact pathway between Bray AFA and the qualifying interests of this SAC, or from any of the other AFAs in UoM10.</p>
Potential Impacts	<p>There is no potential impact pathway between the qualifying interests of Red Bog, Kildare SAC and any of the AFAs in UoM10. No further screening is required in the UoM10 assessment. The consideration of potential Impacts from AFAs in UoM09 has been undertaken in that section.</p>

Name: Rockabill to Dalkey Island SAC		Site Code: (IE003000)
Qualifying Interest(s)	<p>Annex I Habitat: Reef [1170]</p> <p>Annex II Species: <i>Phocoena phocoena</i> (Harbour Porpoise) [1351]</p>	
Proximity to AFA(s) and Linkage	<p>Rockabill to Dalkey Island SAC encompasses a large and broadly rectangular-shaped offshore area, measuring approximately 7 km wide and 40 km in length, extending south from Rockabill Island, running adjacent to Howth Head, and crossing the outer part of Dublin Bay to Frazer Bank in south Co. Dublin. The site encompasses Dalkey, Muglins and Rockabill islands.</p> <p>There are 11 AFAs within 15km of Rockabill to Dalkey Island SAC. Six AFAs are in UoM09: Clontarf (6.2km), Raheny (4.4km), Sandymount (7.6km), Santry (9.3km), Sutton & Baldoyle (3.3km) and Sutton & Howth North (1.8km). The assessment of the potential impacts from AFAs in UoM09 has been undertaken in that section.</p> <p>Five AFAs are in UoM10: Bray (4.1km), Greystones (9.1km), Kilcoole (13.0km), Loughlinstown (1.5km) and Old Connaught & Wilford (2.3km). With the exception of Kilcoole and Loughlinstown (which are subject to fluvial flood risk only), all these AFAs are subject to both fluvial and coastal flood risk. Having regard to the separation distance, across coastal waters and the nature of the qualifying interests, no impacts from the implementation of FRM methods in the AFAs in UoM10 are predicted to occur on the qualifying interests of the Rockabill to Dalkey Island SAC, either from the alteration of flows within the affected watercourses, from alterations to the sediment regime where those watercourses discharge into the sea, or from the implementation of coastal flood defences.</p>	
Potential Impacts	<p>As there is no potential impact pathway between the qualifying interests of the Rockabill to Dalkey Island SAC and any of the AFAs in UoM09 and UoM10, it has been concluded that the SPA will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently the SAC has been removed from any further screening.</p>	

Name: Slaney River Valley SAC		Site Code: (IE000781)
Qualifying Interest(s)	<p>Annex I Habitat: Estuaries [1130], Mudflats and sandflats not covered by seawater at low tide [1140], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0]</p> <p>Annex II Species: <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029], <i>Petromyzon marinus</i> (Sea Lamprey) [1095], <i>Lampetra planeri</i> (Brook Lamprey) [1096], <i>Lampetra fluviatilis</i> (River Lamprey) [1099], <i>Alosa fallax fallax</i> (Twaite Shad) [1103], <i>Salmo salar</i> (Salmon) [1106], <i>Lutra lutra</i> (Otter) [1355] and <i>Phoca vitulina</i> (Common Seal) [1365]</p>	
Proximity to AFA(s) and Linkage	<p>Slaney River Valley SAC is outside the Eastern CFRAM Study area, but is located within 15km of UoM10 (and UoM09) and therefore has the potential to be influenced by the Eastern CFRAM Study. As such, it has been included in the screening.</p> <p>There are no AFAs from UoM09 within 15km of the Slaney River Valley SAC. There are two AFAs in UoM10 within 15km of the European site: Aughrim (9.3km) and Avoca (13.8km). Slaney River Valley SAC is in a separate river catchment area to Aughrim and Avoca AFAs and there is no hydraulic connectivity between the sites, nor is there any connectivity by virtue of a biodiversity stepping stone or corridor.</p>	
Potential Impacts	<p>As there is no potential impact pathway between the qualifying interests of the Slaney River Valley SAC and any of the AFAs in UoM09 and UoM10, it has been concluded that the SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently the SAC has been removed from any further screening.</p>	

Name: South Dublin Bay and River Tolka Estuary SPA		Site Code: (IE004024)
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Qualifying Interest(s)	Wetland and Waterbirds [A999] habitat supporting Species of Special Conservation Interest: Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Knot (<i>Calidris canutus</i>) [A143], Sanderling (<i>Calidris alba</i>) [A144], Dunlin (<i>Calidris alpina</i>) [A149], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Redshank (<i>Tringa totanus</i>) [A162], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Roseate Tern (<i>Sterna dougallii</i>) [A192], Common Tern (<i>Sterna hirundo</i>) [A193] and Arctic Tern (<i>Sterna paradisaea</i>) [A194]
Proximity to AFA(s) and Linkage	<p>There are 12 AFAs/HPWs within approximately 15km of the South Dublin Bay and River Tolka Estuary SPA. Eight AFAs are in UoM09: Clontarf (0.0km), Dublin City HPWs (0.0km), Lucan to Chapelizod (7.0km), Raheny (0.9km), Sandymount (0.0km), Santry (3.9km), Sutton & Baldoyle (4.3km) and Sutton & Howth North (5.0km). Five further AFAs, Baldonnel (16.7km), Celbridge (19.8km), Hazelhatch (19.5km), Leixlip (16.2km) and Maynooth (22.3km) were also screened as they are upstream of the SPA. The assessment of the potential impacts from AFAs in UoM09 has been undertaken in that section.</p> <p>The AFAs in UoM10 with the potential to influence the South Dublin Bay and River Tolka Estuary SPA are: Bray (9.7km), Greystones (15.1km), Loughlinstown (5.1km) and Old Connaught & Wilford (7.8km). All of these AFAs are located south of Dublin Bay and are separated from it by several kilometres of open coastline, Sorrento Point and the Dalkey Islands. It is considered that due to the distances involved, across open coastal waters, there is no potential impact pathway between these AFAs and the South Dublin Bay and River Tolka Estuary SPA.</p>
Potential Impacts	<p>There is no potential impact pathway between the qualifying interests of South Dublin Bay and River Tolka Estuary SPA and any of the AFAs in UoM10. No further screening is required in the UoM10 assessment.</p> <p>Further consideration has been given to potential impacts from AFAs in UoM09 in that section where Appropriate Assessment has been recommended.</p>

Name: South Dublin Bay SAC Site Code: (IE000210)	
Qualifying Interest(s)	Annex I Habitat: Mudflats and sandflats not covered by seawater at low tide [1140]
Proximity to AFA(s) and Linkage	<p>There are 12 AFAs/HPWs within approximately 15km of the South Dublin Bay SAC, seven of which are in UoM09 and the remainder in UoM10.</p> <p>The AFAs in UoM09 with the potential to influence the South Dublin Bay SAC are: Clontarf (2.0km), Dublin City HPWs, Lucan to Chapelizod (8.0km), Raheny (2.9km), Sandymount (0.0km), Santry (6.8km), Sutton & Baldoyle (5.5km) and Sutton & Howth North (6.1km). Five additional AFAs, Baldonnel (16.8km), Celbridge (20.7km), Hazelhatch (20.2km), Leixlip (17.5km) and Maynooth (24.0km) were also screened as they are directly upstream of the SAC. The assessment of the potential impacts from AFAs in UoM09 has been undertaken in that section.</p> <p>The AFAs in UoM10 with the potential to influence the South Dublin Bay SAC are: Bray (9.8km), Greystones (15.2km), Loughlinstown (5.2km) and Old Connaught & Wilford (7.9km). All of these AFAs are located south of Dublin Bay and are separated from it by several kilometres of open coastline, Sorrento Point and the Dalkey Islands. It is considered that due to the distances involved, across open coastal waters, there is no potential impact pathway between these AFAs and the South Dublin SAC.</p>
Potential Impacts	<p>There is no potential impact pathway between the qualifying interests of South Dublin Bay SAC and any of the AFAs in UoM10. No further screening is required in the UoM10 assessment.</p> <p>Further consideration has been given to potential impacts from AFAs in UoM09 in that section, where Appropriate Assessment has been recommended.</p>

Name: The Murrough SPA		Site Code: (IE004186)
Qualifying Interest(s)	Wetland and Waterbirds [A999] habitat supporting Species of Special Conservation Interest: Red-throated Diver (<i>Gavia stellata</i>) [A001], Greylag Goose (<i>Anser anser</i>) [A043], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Wigeon (<i>Anas penelope</i>) [A050], Teal (<i>Anas crecca</i>) [A052], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Herring Gull (<i>Larus argentatus</i>) [A184] and Little Tern (<i>Sterna albifrons</i>) [A195]	
Proximity to AFA(s) and Linkage	<p>There are seven AFAs within 15km of The Murrough SPA. They are: Ashford/Rathnew (0.0km), Bray (8.4km), Greystones (2.5km), Kilcoole (0.0km), Newcastle (0.0km), Old Connaught & Wilford (12.0km) and Wicklow (0.0km).</p> <p>The AFAs of Ashford/Rathnew, Kilcoole, Newcastle and Wicklow include areas within the SPA boundary and there is potential for direct impacts on the qualifying interests from FRM methods at these AFAs.</p> <p>Greystones AFA, which is subject to both coastal and fluvial flood risk, is 2.5km from The Murrough SPA. There is the potential for indirect impacts from the implementation of FRM methods at Greystones on the qualifying interests of The Murrough SPA.</p> <p>The AFAs of Bray and Old Connaught & Wilford are 8-12km from The Murrough and are separated from it by open coastal waters and Bray Head. There is considered to be no potential impact pathway between these AFAs and the qualifying interests of the SPA.</p>	
Potential Impacts	<p>There is no potential impact pathway between the qualifying interests of The Murrough SPA and the AFAs of Bray and Old Connaught & Wilford.</p> <p>There exists the potential for indirect and direct impacts on the qualifying interests of The Murrough SPA from the implementation of FRM methods at Ashford/Rathnew, Greystones, Kilcoole, Newcastle and Wicklow AFAs; Appropriate Assessment is required to assess the significance of these impacts.</p>	

Name: The Murrough Wetlands SAC		Site Code: (IE002249)
Qualifying Interest(s)	Annex I Habitat: Annual vegetation of drift lines [1210], Perennial vegetation of stony banks [1220], Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330], Alkaline fens [7230], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] and Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> [7210]	
Proximity to AFA(s) and Linkage	<p>There are eight AFAs within 15km of The Murrough SAC. They are: Ashford/Rathnew (0.0km), Bray (7.4km), Greystones (1.6km), Kilcoole (0.0km), Loughlinstown (15.1km), Newcastle (0.0km), Old Connaught & Wilford (11.0km) and Wicklow (0.0km).</p> <p>The AFAs of Ashford/Rathnew, Kilcoole, Newcastle and Wicklow include areas within the SAC boundary and there is potential for direct impacts on the qualifying interests from FRM methods at these AFAs.</p> <p>Greystones AFA, which is subject to both coastal and fluvial flood risk, is 1.6km from The Murrough SAC. There is the potential for indirect impacts from the implementation of FRM methods at Greystones on the qualifying interests of The Murrough SAC.</p> <p>The AFAs of Bray, Loughlinstown, and Old Connaught & Wilford are 7.4-c.15km from The Murrough and are separated from it by open coastal waters and Bray Head. There is considered to be no potential impact pathway between these AFAs and the qualifying interests of the SAC.</p>	
Potential Impacts	<p>There is no potential impact pathway between the qualifying interests of The Murrough SAC and the AFAs of Bray, Loughlinstown, and Old Connaught & Wilford.</p> <p>There exists the potential for indirect and direct impacts on the qualifying interests of The Murrough SAC from the implementation of FRM methods at Ashford/Rathnew, Greystones, Kilcoole, Newcastle and Wicklow AFAs; Appropriate Assessment is required to assess the significance of these impacts.</p>	

Name: Vale of Clara (Rathdrum Wood) SAC		Site Code: (IE000733)
Qualifying Interest(s)	Annex I Habitat: Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles [91A0]	
Proximity to AFA(s) and Linkage	<p>The Vale of Clara (Rathdrum Wood) SAC is an oak woodland on the on the east side of the Avonmore River, a tributary of the Avoca River.</p> <p>There are 5 AFAs within 15km of Vale of Clara (Rathdrum Wood) SAC. These are: Ashford/Rathnew (7.2km), Aughrim (9.9km), Avoca (8.3km), Newcastle (13.4km) and Wicklow (8.6km).</p> <p>The AFAs of Ashford/Rathnew, Aughrim, Newcastle and Wicklow are in separate catchments to the Avoca River and have no hydraulic connectivity with it, nor any connectivity by means of a biodiversity corridor or stepping stone.</p> <p>Avoca AFA is c. 10.8km downstream of the Vale of Clara (Rathdrum Wood) SAC. There is no possibility of any upstream / upcatchment FRM methods being adopted for Avoca AFA that would have any impact on the qualifying interests or conservation objectives of the Vale of Clara (Rathdrum Wood) SAC. The upstream distance is such that there is not considered to be any potential impact pathway between Avoca AFA and the qualifying interest of the Vale of Clara (Rathdrum Wood) SAC.</p>	
Potential Impacts	<p>As there is no potential impact pathway between the qualifying interests of the Vale of Clara (Rathdrum Wood) SAC and the AFAs of Ashford/Rathnew, Aughrim, Avoca, Newcastle or Wicklow, it has been concluded that the SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently the SAC has been removed from any further screening.</p>	

Name: Wicklow Head SPA		Site Code: (IE004127)
Qualifying Interest(s)	Species of Special Conservation Interest: Kittiwake (<i>Rissa tridactyla</i>) [A188]	
Proximity to AFA(s) and Linkage	<p>There are four AFAs within 15km of Wicklow Head SPA. These are: Ashford/Rathnew (2.9km), Kilcoole (13.1km), Newcastle (9.0km), Wicklow (0.0km).</p> <p>Kilcoole and Newcastle AFAs are 9-13km from Wicklow Head SPA and are separated from it by open coastal waters. There is considered to be no potential impact pathway between these AFAs and the qualifying interest of the SPA.</p> <p>Ashford/Rathnew AFA is 2.9km from Wicklow Head SPA and is subject to both coastal and fluvial flood risk. However, the AFA is set back c.800m from the shoreline, inland of Broad Lough and the Leitrim River Estuary. The qualifying interest of Wicklow Head SPA will not experience any significant impacts from the alteration of flows within the affected watercourses in Ashford/Rathnew AFA, from alterations to the sediment regime where those watercourses discharge into the sea, or from the implementation of coastal flood defences.</p> <p>Wicklow AFA is immediately adjacent to the Wicklow Head SPA and is subject to coastal as well as fluvial flood risk. The Ballyguile Stream, which passes through the AFA, discharges into the waters of the SPA. There exists the potential for direct impacts on Wicklow Head SPA from FRM methods at Wicklow AFA.</p>	
Potential Impacts	<p>There is no potential impact pathway between the qualifying interest of Wicklow Head SPA and the AFAs of Ashford/Rathnew, Kilcoole and Newcastle.</p> <p>There exists the potential for indirect and direct impacts on the qualifying interests of Wicklow Head SPA from the implementation of FRM methods at Wicklow AFA; Appropriate Assessment is required to assess the significance of these impacts.</p>	

Name: Wicklow Mountains SAC		Site Code: (IE002122)
Qualifying Interest(s)	Annex I Habitat: Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> [3130], Natural dystrophic lakes and ponds [3160], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], European dry heaths [4030],	

	<p>Alpine and Boreal heaths [4060], Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230], Blanket bogs (if active bog) [7130], Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110], Calcareous rocky slopes with chasmophytic vegetation [8210], Siliceous rocky slopes with chasmophytic vegetation [8220] and Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</p> <p>Annex II Species: <i>Lutra Lutra</i> (Otter) [1355],</p>
Proximity to AFA(s) and Linkage	<p>Wicklow Mountains SAC is a large SAC, spread over a number of hydrometric areas, including UoM09 and UoM10. There are 21 AFAs in the Eastern CFRAMS Study area which are within 15km of the SAC, 11 in UoM09 and 10 in UoM10.</p> <p>UoM09</p> <p>The AFAs in UoM09 with the potential to influence the Wicklow Mountains SAC are: Baldonnel (8.1km), Blessington (2.5km), Celbridge (14.2km), Clontarf (14.4km), Dublin City HPWs (3.5km), Hazelhatch (13.1km), Leixlip (14.6km), Lucan to Chapelizod (12.1km), Naas (10.8km), Sandymount (10.1km) and Turnings/Killeenmore (14.5km). The assessment of the potential impacts from AFAs in UoM09 has been undertaken in that section where it was concluded that there is no potential impact pathway between the qualifying interests of the Wicklow Mountains SAC and any of the AFAs in UoM09.</p> <p>UoM10</p> <p>The AFAs in UoM10 with the potential to influence the Wicklow Mountains SAC are: Ashford/Rathnew (8.3km), Aughrim (10.1km), Avoca (13.8km), Bray (4.1km), Greystones (7.4km), Kilcoole (8.8km), Loughlinstown (7.8km), Newcastle (9.6km), Old Connaught & Wilford (4.9km) and Wicklow (12.4km).</p> <p>All of the AFAs in UoM10, except Loughlinstown, have hydraulic connectivity with the SAC, as they are all downstream of the SAC, which provides the upland source catchment for all the principal watercourses draining through the AFAs. With the exception of Avoca and Aughrim AFAs, all of the AFAs in UoM10 are coastally located and are at the downstream extent of their river catchments. Avoca and Aughrim, although not coastal, are respectively 11 and 18km downstream from the SAC.</p> <p>There is no possibility of any upstream / upcatchment FRM methods being adopted for any of the AFAs in UoM10 that would have any impact on the qualifying interests or conservation objectives of the Wicklow Mountains SAC. The upstream distance is such that there is not considered to be any potential impact pathway between any of the AFAs in UoM10 and the qualifying interests of the Wicklow Mountains SAC.</p>
Potential Impacts	<p>There is no potential impact pathway between the qualifying interests of the Wicklow Mountains SAC and any of the AFAs in UoM10, or any of the AFAs in UoM09. It has therefore been concluded that the SAC will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently the SAC has been removed from any further screening.</p>

Name: Wicklow Mountains SPA Site Code: (IE004040)	
Qualifying Interest(s)	Species of Special Conservation Interest: Merlin (<i>Falco columbarius</i>) [A098] and Peregrine (<i>Falco peregrinus</i>) [A103]
Proximity to AFA(s) and Linkage	<p>Wicklow Mountains SPA is a large SPA, spread over a number of hydrometric areas, including UoM09 and UoM10. There are 17 AFAs in the Eastern CFRAMS Study area which are within 15km of the SPA, 7 in UoM09 and 10 in UoM10.</p> <p>UoM09</p> <p>The AFAs in UoM09 with the potential to influence the Wicklow Mountains SAC are: Baldonnel (11.6km), Blessington (5.5km), Clontarf (14.7km), Dublin City HPWs (3.7km), Lucan to Chapelizod (12.1km), Naas (13.6km) and Sandymount (10.3km). The assessment of the potential impacts from AFAs in UoM09 has been undertaken in that section, where it was concluded that there is no potential impact pathway between the qualifying interests of the Wicklow Mountains SPA and any of the AFAs in UoM09.</p>

	<p>UoM10</p> <p>The AFAs in UoM10 with the potential to influence the Wicklow Mountains SPA are: Ashford/Rathnew (10.3km), Aughrim (10.1km), Avoca (13.8km), Bray (4.6km), Greystones (7.1km), Kilcoole (8.8km), Loughlinstown (7.9km), Newcastle (9.6km), Old Connaught & Wilford (5.4km) and Wicklow (14.0km).</p> <p>All of the AFAs in UoM10, except Loughlinstown, have hydraulic connectivity with the SPA, as they are all downstream of the SPA, which provides the upland source catchment for all the principal watercourses draining through the AFAs. With the exception of Avoca and Aughrim AFAs, all of the AFAs in UoM10 are coastally located and are at the downstream extent of their river catchments. Avoca and Aughrim, although not coastal, are respectively 11 and 18km downstream from the SPA</p> <p>There is no possibility of any upstream / upcatchment FRM methods being adopted for any of the AFAs in UoM10 that would have any impact on the qualifying interests or conservation objectives of the Wicklow Mountains SPA. The upstream distance is such that there is not considered to be any potential impact pathway between any of the AFAs in UoM10 and the qualifying interests of the Wicklow Mountains SPA.</p>
Potential Impacts	<p>There is no potential impact pathway between the qualifying interests of the Wicklow Mountains SPA and any of the AFAs in UoM10, or any of the AFAs in UoM09. It has therefore been concluded that the SPA will not be impacted by any of the FRM methods proposed in the Eastern CFRAM Study. Consequently the SPA has been removed from any further screening.</p>

Name: Wicklow Reef SAC		Site Code: (IE002274)
Qualifying Interest(s)	Annex I Habitat: Reefs [1170]	
Proximity to AFA(s) and Linkage	<p>Wicklow Reef SAC is an offshore area, near Wicklow Head, measuring approximately 4.5km by 3.5km. The substrate is a mixture of cobbles, bedrock and sand and is subject to strong tidal streams. There are four AFAs within 15km of Wicklow Reef SAC. These are: Ashford/Rathnew (4.4km), Kilcoole (12.5km), Newcastle (8.3km) and Wicklow (0.9km).</p> <p>The main pressures and threats to reef habitats arise from fishing/dredging, extraction, and construction. It is also noted in the Conservation Objectives Supporting Document -Marine Habitat (V1 -June 2013) for this site that there is naturally high turbidity in the waters due to the high currents.</p> <p>Ashford/Rathnew, Kilcoole and Newcastle AFAs are all several km, across open coastal waters from Wicklow Reef SAC. It is considered that there is no potential impact pathway between these AFAs and the qualifying interest of the SAC.</p> <p>Wicklow SAC is 0.9km from the boundary of Wicklow AFA, which is subject to both coastal and fluvial flood risk. Indirect impacts from FRM methods at Wicklow AFA are unlikely, but not impossible.</p>	
Potential Impacts	<p>There is no potential impact pathway between the qualifying interest of Wicklow Reef SAC and the AFAs of Ashford/Rathnew, Kilcoole and Newcastle.</p> <p>There exists the potential for indirect impacts on the qualifying interests of Wicklow Reef SAC from the implementation of FRM methods at Wicklow AFA; Appropriate Assessment is required to assess the significance of these impacts.</p>	

GLOSSARY OF TERMS

Appropriate Assessment An assessment of the effects of a plan or project on European Sites. European Sites comprise Special Protection Areas under the Birds Directive and Special Areas of Conservation under the Habitats Directive.

Areas for Further Assessment (AFAs) Existing urban areas with quantifiable flood risk.

Assessment Unit Defines the spatial scale at which flood risk management options are assessed. Assessment Units are defined on four spatial scales ranging in size from largest to smallest as follows: catchment scale, Assessment Unit (AU) scale, Areas for Further Assessment (APSR) and Individual Risk Receptors (IRR).

Biodiversity Word commonly used for biological diversity and defined as assemblage of living organisms from all habitats including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part.

Birds Directive Council Directive of 2nd April 1979 on the conservation of wild birds (79/409/EEC).

Catchment A surface water catchment is the total area of land that drains into a watercourse.

Catchment Flood Risk Management Plan (CFRMP) A large-scale strategic planning framework for the integrated management of flood risks to people and the developed and natural environment in a sustainable manner.

Estuary A semi-enclosed coastal body of water with one or more rivers or streams flowing into it, and with an open connection to the sea.

Flood An unusual accumulation of water above the ground caused by high tide, heavy rain, melting snow or rapid runoff from paved areas. In this Study a flood is marked on the maps where the model shows a difference between ground level and the modelled water level. There is no depth criterion, so even if the water depth is shown as 1mm, it is designated as flooding.

Flood Defence A structure (or system of structures) for the alleviation of flooding from rivers or the sea.

Flood Risk Refers to the potential adverse consequences resulting from a flood hazard. The level of flood risk is the product of the frequency or likelihood of flood events and their consequences (such as loss, damage, harm, distress and disruption).

Flood Risk Management Method Structural and non-structural interventions that modify flooding and flood risk either through changing the frequency of flooding, or by changing the extent and consequences of flooding, or by reducing the vulnerability of those exposed to flood risks.

Flood Risk Management Option Can be either a single flood risk management method in isolation or a combination of more than one method to manage flood risk.

Floodplain Any area of land over which water flows or is stored during a flood event or would flow but for the presence of flood defences.

Geographical Information System (GIS) a computer-based system for capturing, storing, checking, integrating, manipulating, analysing and displaying data that are spatially referenced.

Geomorphology The science concerned with understanding the form of the Earth's land surface and the processes by which it is shaped, both at the present day as well as in the past.

Groundwater All water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil. This zone is commonly referred to as an aquifer which is a subsurface layer or layers of rock or other geological strata of sufficient porosity and permeability to allow a significant flow of groundwater or the abstraction of significant quantities of groundwater.

Habitats Directive European Community Directive (92/43/EEC) on the Conservation of Natural Habitats and of Wild Flora and Fauna and the transposing Irish regulations (The European Union (Natural Habitats) Regulations, SI 94/1997 as amended).. It establishes a system to protect certain fauna, flora and habitats deemed to be of European conservation importance.

Heavily Modified Water Body Surface waters that have been substantially changed for such uses as navigation (ports), water storage (reservoirs), flood defence (flood walls) or land drainage (dredging).

Individual Risk Receptors (IRR) Essential infrastructure assets such as a motorway or potentially significant environmentally polluting sites.

Mitigation Measures Measures to avoid/prevent, minimise/reduce, or as fully as possible, offset/compensate for any significant adverse effects on the environment, as a result of implementing a plan or project.

Natura 2000 European network of protected sites which represent areas of the highest value for natural habitats and species of plants and animals which are rare, endangered or vulnerable in the European Community. The Natura 2000 network will include two types of area. Areas may be designated as Special Areas of Conservation (SAC) where they support rare, endangered or vulnerable natural habitats and species of plants or animals (other than birds). Where areas support significant numbers of wild birds and their habitats, they may become Special Protection Areas (SPA). SACs are designated under the Habitats Directive and SPAs are classified under the Birds Directive. Some very important areas may become both SAC and SPA.

Natural Heritage Area An area of national nature conservation importance, designated under the Wildlife Act 1976 (as amended), for the protection of features of high biological or earth heritage value or for its diversity of natural attributes.

Non Structural Options Include flood forecasting and development control to reduce the vulnerability of those currently exposed to flood risks and limit the potential for future flood risks.

Ramsar Site Wetland site of international importance designated under the Ramsar Convention on Wetlands of International Importance 1971, primarily because of its importance for waterfowl.

River Basin Districts Administrative areas for coordinated water management and are comprised of multiple river basins (or catchments), with cross-border basins (i.e. those covering the territory of more than one Member State) assigned to an international RBD.

Scoping the process of deciding the content and level of detail of an Appropriate Assessment under the Habitats Directive, including the key environmental issues, likely significant environmental effects and alternatives which need to be considered, the assessment methods to be employed, and the structure and contents of the Natura Impact Statement.

Screening The determination of whether implementation of a plan or project would be likely to have significant environmental effects on the Natura 2000 network.

SEA Directive Directive 2001/42/EC 'on the assessment of the effects of certain plans and programmes on the environment'.

Sedimentation The deposition by settling of a suspended material.

Significant Effects Effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.

Special Area of Conservation (SAC), Candidate Special Area of Conservation (cSAC) A SAC is an internationally important site, protected for its habitats and non-bird species. It is designated, as required, under the EC Habitats Directive. A cSAC is a candidate site, but is afforded the same status as if it were confirmed.

Special Protection Area (SPA) A SPA is a site of international importance for breeding, feeding and roosting habitat for bird species. It is designated, as required, under the EC Birds Directive.

Statutory Instrument Any order, regulation, rule, scheme or byelaw made in exercise of a power conferred by statute.

Structural Options Involve the application of physical flood defence measures, such as flood walls and embankments, which modify flooding and flood risk either through changing the frequency of flooding, or by changing the extent and consequences of flooding.

Surface Water Means inland waters, except groundwater, which are on the land surface (such as reservoirs, lakes, rivers, transitional waters, coastal waters and, under some circumstances, territorial waters) which occur within a river basin.

Sustainability A concept that deals with mankind's impact, through development, on the environment. Sustainable development has been defined as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (Brundtland, 1987). Sustainability in the flood risk management context could be defined as the degree to which flood risk management options avoid tying future generations into inflexible or expensive options for flood defence. This usually includes consideration of other defences and likely developments as well as processes within a catchment.

The Office of Public Works (OPW) The lead agency with responsibility for flood risk management in Ireland.

Tidal Related to the sea and its tide.

Transitional waters Bodies of surface water in the vicinity of river mouths which are partly saline in character as a result of their vicinity to coastal waters, but which are substantially influenced by freshwater flows.

Water Body A discrete and significant element of surface water such as a river, lake or reservoir, or a distinct volume of groundwater.

Water Course Any flowing body of water including rivers, streams etc.

Zone of Influence the area over which ecological features may be subject to significant effects as a result of the proposed Plan and associated activities. This may extend beyond the Plan area, for example where there are ecological or hydrological links beyond the Plan boundary. The zone of influence may vary for different ecological features depending on their sensitivity to an environmental change.