

Sustainable Water Network (SWAN)

Physical modifications of Ireland's water resources &
implications for meeting
Water Framework Directive objectives

SW-PM-07



- Tender Invitation Document -

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Table of Contents

1. INTRODUCTION / SUMMARY	1
2. BACKGROUND, CONTEXT & PURPOSE	1
2.1 Background information on SWAN and our work	1
2.2 Legislative and policy context.....	2
2.3 Purpose of research	3
3. SCOPE OF WORK	3
3.1 Specific project objectives	3
3.2 Additional requirements and services	4
3.3 Deliverables	5
4. THE TENDER SUBMISSION: INFORMATION REQUIRED	5
5. EVALUATION CRITERIA	6
6. TENDER APPLICATION PROCEDURE, PROJECT MANAGEMENT, TIMELINE & BUDGET	6
6.1 Project management	6
6.2 Tender application procedure and timeline	7
6.3 Budget	7
<i>APPENDIX I</i>	<i>1</i>

1. INTRODUCTION / SUMMARY

The Sustainable Water Network (SWAN) seeks a team of researchers to conduct a desk-based research project on physical modifications as a significant water management issue in Ireland, entitled '**Physical modifications of Ireland's water resources & implications for meeting Water Framework Directive objectives**'.

This will look at their interactions with freshwater, transitional and coastal waters, and groundwater and groundwater dependent terrestrial ecosystems (GWDTes) and their implications for Water Framework Directive (WFD) implementation, the status of Ireland's waters and the meeting of WFD targets. The research must be based on a wide range of primary and secondary literature, including national and international peer-reviewed publications.

SWAN selects its contractors through a competitive process and this Tender Invitation Document (TID) sets out the purpose and scope of work that the Sustainable Water Network (SWAN) wishes to commission; sets out the work timetable and deliverables and describes how tenderers can tender for the work.

The final report should provide an evidence-based analysis of the impacts of physical / hydro-morphological modifications on Ireland's surface water, groundwater and groundwater dependent terrestrial ecosystems (GWDTes), including cumulative impacts and the implications for Water Framework Directive (WFD) implementation and the meeting of WFD targets. It will also provide a comprehensive review of EU and Irish policy, legislation and guidance relevant to physical modifications of water bodies, including a critical analysis of the efficacy of the current legislative and regulatory system (incl. planning) to control physical modifications in order to meet WFD objectives in Ireland. It will also include a comparative study of management / regulatory regimes in other jurisdictions, with a focus on EU Member States and best practice applicable to Ireland. The research will be based on a wide range of national and international primary (peer-reviewed) and secondary literature, in addition to international case studies and best practice.

Based on the above research and literature review, **the key output from the research will be a set of evidence-based recommendations** setting out proposed actions to regulate / manage physical modifications in Ireland (including restoration) in order to meet WFD objectives. This should include proposals for both 'basic' and 'supplementary' measures under the WFD.

2. BACKGROUND, CONTEXT AND PURPOSE

2.1 Background information on SWAN & our work

SWAN is a network of 24 of Ireland's leading environmental NGOs¹, working to protect Ireland's aquatic resources through active engagement in the implementation of the Water Framework Directive, the

¹ See Appendix I for list of SWAN members and Directors

Marine Strategy Framework Directive, the Floods Directive and other water-related policy. One of SWAN's key objectives is to participate in and inform national debate, at all levels, on the sustainable management of Ireland's aquatic resources, with the support of evidence-based information, analysis, recommendations and international best practice examples.

SWAN has commissioned research in the past on *inter alia* Integrated Coastal Zone Management (ICZM) & the WFD; Hydraulic Fracturing and the WFD & Groundwater Directive; and water abstraction & the WFD.² In 2017, SWAN made a detailed submission on the draft River Basin Management Plan (RBMP) 2018-2021, including on physical modifications, which has been identified as a significant water management issue in the RBMP. In August 2020 SWAN responded to the Significant Water Management Issues consultation as part of the third River Basin Management Planning cycle, in which hydro-morphological alterations were again highlighted as a significant issue.

2.2 Legislative and policy context

Hydro-morphological alterations represent a significant pressure on some of Ireland's inland surface waters, groundwaters and GWDTEs and, as reported in the River Basin Management Plan 2018-2021, *"are a significant pressure in 345 (24%) of water bodies identified as 'At Risk'"* and include *"damage to habitat and natural river/lake processes, and changes functions caused by channelisation, land drainage, dams, weirs, barriers and locks, overgrazing, embankments and culverts"*.

The Water Framework Directive recognises the importance of the physical integrity of water bodies, describing hydro-morphological elements as 'supporting' the biological elements of aquatic and groundwater-dependent habitats. It further identifies physical alteration of water bodies as a significant pressure and provides an overall framework to address these, requiring *'measures to ensure that the hydromorphological conditions of the bodies of water are consistent with the achievement of the required ecological status'* for water bodies.

River Basin Management Plans for the period 2009-2015 published in 2010³ state that *'...proposed authorisation regulations for ... physical modifications' 'are under preparation'* and that a *'formal legal mechanism'* to address morphological pressures on the coastal environment including *'coastal defence, built structures (urbanisation and ports and harbours) and dredging'* will be provided by a *'proposed amendment to the legislative framework, to regulate physical modifications having an adverse impact on the water environment'*. These regulations have yet to be introduced. The second cycle RBMP 2018-2021 says that *"The DHPLG has identified that the ultimate goal is to have a statutory control regime in place to manage activities impacting on the physical condition of the water environment - as well as a prioritised programme of restoration for impacted waters - by the time the third RBMP is published in December 2021"* and that *"The Department envisages that the control regime will be risk-based and proportionate..."*

² The ICZM and fracking reports are both available on the SWAN website. Please note that the budget for both these projects was significantly less than for the current project.

³ See Shannon River Basin District (2010) *River Basin District Management Plan for the Shannon*. Limerick County Council, Limerick.

2.3 Purpose of this research in the context of SWAN's organisational aims and objectives

The purpose of this desk-based research project is two-fold: 1) to provide a definitive literature review on the pressures and impacts of hydro-morphological / physical alterations of water bodies on the water environment, in the context of the achievement of WFD targets in Ireland and 2) based on the above and also on case studies and best practice, to present robust, evidence-based recommendations regarding how best to address and manage these physical / hydro-morphological alterations in order to meet WFD objectives and achieve sustainable water management in Ireland.

In terms of end-use, this research will:

- provide the evidence-base to inform SWAN submissions and communications during formal and informal consultations on relevant policy development and implementation, with national Government agencies and Departments, EU institutions and other stakeholders and
- support the relevant policy and advocacy work of SWAN member organisations on this issue in order to inform and contribute to a national debate on physical / hydro-morphological alterations, specifically in relation to its impact on the aquatic environment and WFD implementation.

3. SCOPE OF WORK

In order to achieve the above purpose the report should encompass the following scope, and satisfy the following project objectives, requirements and deliverables:

3.1 Specific project objectives

1. A comprehensive literature review including primary (peer-reviewed), secondary and tertiary literature to provide a full overview of the pressures and impacts on surface water, groundwater and GWDTEs posed by physical / hydro-morphological alterations to inland, coastal and ground waterbodies. This will include cumulative impacts and information on impacts on WFD status;
2. A detailed description and analysis of the provisions in the WFD directly and indirectly related to physical/hydro-morphological alterations, including classification, exemptions and required measures;
3. A comprehensive overview of current relevant EU and Irish policy, legislation and guidance (incl. planning) governing physical / hydro-morphological alterations;
4. A critical analysis of the above policy and legislative provisions governing physical / hydro-morphological alterations, in the context of the meeting of WFD requirements. This should include:
 - Identification of the relevant legislative, policy and planning instruments and the respective competent authorities and responsible government departments;
 - Identification of the overlaps, interactions and gaps between these⁴;

⁴ Both legislative overlaps & gaps and overlaps & gaps in Departmental and agency responsibility should be addressed here.

- An assessment of the effectiveness of the current legislative, policy and planning regime for controlling physical / hydro-morphological alterations and meeting WFD targets, including strengths and weaknesses, and an assessment of its implementation and enforcement;
5. To identify and draw extensively on case studies and conduct a comparative analysis of physical / hydro-morphological alterations control / management regimes, focusing on other EU Member States, but examining other jurisdictions where relevant, with a focus also on both lessons learned and best practice applicable in Ireland;
 6. Consultation (qualitative survey) with a focused number of key decision-makers and stakeholders with relevant state agencies and stakeholder/industry groups, decided in consultation with the Project Steering Group, in order to establish a wide range of views on, and practical experience of, management of physical / hydro-morphological alterations;
 7. Based on 1- 6 above, to present a discussion of findings leading to a set of recommendations on how best to address the impacts of physical / hydro-morphological alterations on Ireland's surface water groundwater and GWDTs, in order to achieve sustainable water management and to meet WFD targets, with particular focus on cumulative impacts and EU and international experience and including:
 - recommendations for basic measures and supplementary measures under the WFD;
 - recommendations regarding effective management, regulatory and planning provisions (and administrative arrangements), if deemed necessary;
 - recommendations on restoration;
 - region/RBD/catchment-specific recommendations where identified;
 - recommendations on any cross-border issues in relation to shared water resources between Northern Ireland and the Republic of Ireland.

3.2 Additional requirements and services

- To attend an online project initiation meeting, and possibly interim meetings if deemed necessary, with the SWAN Project Steering Group;
- To conduct a qualitative survey of key decision-makers and relevant stakeholders with relevant state agencies and stakeholder/industry groups. These will be decided in consultation with the Project Steering Group;
- To present research findings at a workshop for SWAN members at a mutually agreed date in Q2 2021⁵;
- This report will be widely promoted by SWAN as a high-profile publication of strategic importance, which will play a significant role in informing potentially contentious future public debates on controls on instream, riparian and coastal works and development. To this end, SWAN will expect it to be underpinned by a comprehensive and systematic review of academic

⁵ This would either be online or in Dublin, depending on government guidelines at the time

literature and to be written to a high publication standard with a high level of interpretation and insight and clear, evidence-based recommendations.

3.3 Deliverables

- Monthly email updates to the SWAN Project Manager;
- Full technical report (including an Executive Summary), fully referenced, written to an exceptionally high standard, suitable for publication and meeting the requirements of the SWAN Project Manager and Steering Group and also all project objectives and requirements set out in 3.1 and 3.2 above;
- A summary report for policy/decision-makers including recommendations from the above report;
- A report of the qualitative survey presented as a separate chapter of, or appendix to, the report (in addition to being incorporated into the discussion and recommendations of the report);
- Draft literature review and draft report to be presented to the SWAN Steering Group for review at phased dates to be agreed in consultation with the Project Manager;
- Presentation to SWAN member workshop, date and location to be agreed.

4. THE TENDER SUBMISSION – INFORMATION REQUIRED

SWAN invites proposals from suitably qualified professionals for the undertaking of the above work. Tenderers should supply the following information, presented in the order below:

- 4.1. An executive summary** of no more than one side of A4 in length, outlining the proposed work and including the total cost of the proposed work, inclusive of VAT;
- 4.2. Company/organisation details**
 - 4.2.1. The name of the contractor;
 - 4.2.2. The nominated contact person within the tenderer's organisation (including name, address, telephone number and email address);
 - 4.2.3. The registered name, address (if different to the above) and company or charity registration number;

SWAN accepts tenders both from individual companies and institutions and from consortiums. If you are tendering as part of a consortium you will need to identify one member of the consortium (the "Lead Contractor") to act as the contracting party. All other consortium members will be sub-contractors to the Lead Contractor.

- 4.3. A description of the methodology, approach and content** proposed to deliver the scope of work set out in Section 3, including an outline plan with timescales and the identification of the distinct elements or tasks;
- 4.4. A list of individuals** who will manage and deliver the work, an indication of their assigned tasks, their respective roles within the organisation and, for the purposes of this work their relevant skills and experience including any relevant professional qualifications;

- 4.5. **A breakdown of costs (inclusive of VAT)**, to include the distinct elements of the work (and where anticipated, expenses), clearly stating whether the costs are calculated on a lump sum or time charge basis, inclusive of VAT and expenses⁶;
- 4.6. Confirmation of access to the necessary range of international and national **academic peer-reviewed journals**;
- 4.7. **Links to written outputs from two relevant previous projects** or, where reports are not in the public domain, names and contact details of two referees;
- 4.8. **Identification of any conflicts of interest** which might arise and an indication of how this conflict would be addressed;
- 4.9. **A consideration of the risks and challenges** of this project and how you would address them.

In order to demonstrate an understanding of the remit, potential contractors are also invited to submit a preliminary list of reading and sources of relevant information, although this is not essential.

5. EVALUATION CRITERIA

SWAN must be satisfied that each potential contractor has the necessary capabilities and resources available to deliver the work to SWAN's requirements. Hence, applicants will be assessed in accordance with the following criteria:

- A. The applicant's understanding of the requirements of the project, demonstrated in the quality of the proposal and proposed methodology: 35%
- B. The relevant skills, experience, qualifications and expertise of the applicant/project team: 35%
- C. Proposed cost and value for money, taking into account the apportionment of time (and rates for this) between the principle investigator/project leader and other researchers 30%

The assessment will be based on written submissions in the first instance, but on-line interviews may also be held.

6. TENDER APPLICATION PROCEDURE, PROJECT MANAGEMENT, TIMELINE AND BUDGET

6.1 Project Management

The research team will work closely with and maintain regular communications with the SWAN Project Manager. A Project Steering Group drawn from SWAN members will be established to guide this research and contribute expertise as appropriate. Communication with the Project Steering Group will take place primarily through the Project Manager but will also include a project initiation meeting and possible interim meetings, if deemed necessary. Regular monthly progress reports will also be submitted to the SWAN Project Manager.

⁶ Please note that invoices will need to be supported by valid receipts and relevant documentation.

6.2 Tender Application Procedure and timeline

- 6.2.1 Tender submissions should be limited to a maximum of 10 sides A4 at 10pt font, excluding appendices, title page, table of contents etc.;
- 6.2.2 Tender submissions should be sent by email to Sinead O'Brien at sobrien@swanireland.ie cc'ing info@swanireland.ie by 5 p.m. on October 30th;
- 6.2.3 SWAN's target timetable is as follows:

Deadline for receipt of tender submissions	October 30
Selection of successful tenderer	November 10
Commencement of work	w/c November 23
Draft literature review	<i>Tbc</i> at project initiation meeting
Full draft report for review	<i>Tbc</i> at project initiation meeting
Delivery of final report ⁷	March. 26 2021
Workshop for SWAN members	April 2021

- 6.2.4 SWAN reserves the right not to follow up this tender invitation document in any way;
- 6.2.5 SWAN will not be responsible for any costs incurred in the preparation of any tender;
- 6.2.6 All tender submissions must remain valid for a minimum period of 90 days following the deadline for receipt of tender submissions.

6.3 Budget:

The project budget will be in the region of €35,000 (including VAT).

⁷ Earlier delivery will be viewed favourably

Appendix I:

SWAN Member Organisations

SWAN National Groups		SWAN Regional & Local Groups	
1.	An Taisce	14.	Carra Mask Corrib Water Protection Group
2.	Bat Conservation Ireland		
3.	Birdwatch Ireland	15.	Cavan Leitrim Environmental Awareness Network
4.	Coastwatch Europe Network		
5.	Coomhola Salmon Trust Ltd.	16.	Celebrate Water
6.	Eco-UNESCO	17.	Cork Environmental Forum
7.	Friends of the Earth	18.	Cork Nature Network
8.	Friends of the Irish Environment		
9.	Irish Peatland Conservation Council	19.	Dodder Action
10.	Irish Seal Sanctuary	20.	Longford Environmental Alliance
11.	Irish Whale and Dolphin Group	21.	Macroom District Environmental Group
12.	Irish Wildlife Trust	22.	Save The Swilly
13.	Voice Of Irish Concern for the Environment (VOICE)		
		23.	River Shannon Protection Alliance
		24.	Slaney River Trust

SWAN Board of Directors

SWAN Board of Directors:	
Mark Boyden, Chair	Coomhola Salmon Trust
Mindy O'Brien, Company Secretary	Voice of Irish Concern for the Environment (VOICE)
Karin Dubsky, Director	Coastwatch Europe
David Healy, Director	Friends of the Irish Environment
Ignatius Egan	Carra Mask Corrib Water Protection Group
David Lee, Director	Cork Environmental Forum
Elaine McGoff, Director	An Taisce
Gerry Siney, Director	Shannon River Protection Alliance