

Mapping and quantification of land restructuring post 2011 for Agricultural and Forestry purposes in a sensitive landscape and an assessment of the consent process on how it applied to this area.

Project focusing on catchments where hydromorphology was identified as a significant pressure in South West

Table 6. Number of waterbodies in each waterbody type per significant pressure category.

Significant pressure category	Waterbody Type						Total
	River	Canal	Lake	Transitional	Coastal	Groundwater	
Agriculture	831		84	35	6	44	1,000
Hydromorphology	424		14	4			442
Forestry	215		14			4	233
Urban Waste Water	172	1	10	22	3		208
Urban Run-off	179		3	11	3		196
Domestic Waste Water	163		13	6		6	188
Unknown	118	1	22	2	3	18	164
Other*	75		45	2	1	16	139
Peat	103		2			1	106
Industry	70		1			18	89
Mines and Quarries	41					4	45
Total Significant Pressures	2,391	2	208	82	16	111	2,810

*Includes a range of other smaller pressures such as aquaculture, historically polluted sites and invasive species.

Who is the pressure owner and how is it managed?

Land reclamation/land drainage as a pressure in PAAs

excluding lands under arterial drainage schemes

Water Quality Impacts

- Loss of wetland habitat
- Change in hydrology
- Change in water quality (increased DOC and increased mineral content)
- Sediment loss to waters
- Increased risk of:
 - Phosphate loss to waters
 - Ammonium loss to waters

Maeve Ryan, LAWPRO

Significant issue in some catchments – Local Catchment Assessments (esp. on SW) – highlighted to National Technical Implementation Group (March 2022)



Examples of land drainage with no mitigation impacting on water quality and habitats. Images from Inland Fisheries Ireland presentation to the SWROC 23/02/23. Courtesy K Griffin



Confluence of a single freshly dug drain into a tributary of the SAC



Freshwater pearl mussels in heavily silted area , d/s of Raheen Bridge, River Allow, Co Cork

General LA feedback

- EIA 2011 (AG) Regs /implementation problematic
- Decision making process unclear
- Also sometimes slow or no response
- Cumulative impacts not reflected
- IFI or planning generally are the go to processes re enforcement – but often not appropriate
- Some never consider EIA Regs!
- Mitigations unclear..out of step with other controls (e.g. forestry or planning)

Drainage maintenance

The EIA Guide for farmers clearly states that;

- “Cleaning of open drains and adjacent levelling of spoil from such cleaning operations is also exempt (not covered by the Regulations).” European Communities (Environmental Impact Assessment)(Agriculture) Regulations 2011.
- The reality seems to be that there is no regulatory oversight of this type of activity unless there is a pollution incident, then action could be taken under the water pollution act, (might be difficult to get a conviction in court).
- The regulations focus very much on the activity rather than the consequences of the activity.”
 - Cork Co Council

Challenges with implementation of EIA (Ag) Regs 2011

- Thresholds are high – but what about “significant effect on the environment”?
- What is that and who determines?
- Conclusion on case study– **drainage maintenance** – so not covered by the EIA Regs
- Can be difficult to determine pre-existing condition (i.e., is it a new drain or an existing drain) – esp if farmer insists it was an existing drain?
- Land changing hands and ownership can cause issues?

Problem

- How do we prevent ecological impact or at least mitigate?
- What is the definition of drainage maintenance? Poor draining soils traditionally would have often small drains along field boundaries – but would be stable.
- Maintenance and restructuring as per examples really constitute new developments when compared to other sectors

Aim

- *Investigate land restructuring in the context of Local Authority planning, Agriculture and Forestry between 2011 and 2021, the **consent process** as it pertains to such land restructuring in a defined area (see maps attached).*
- *The area includes Natura 2000 sites and high-status water bodies. Therefore a determination on the cumulative impacts will also be important.*

Process

- *The successful tenderer will be required to work off available digital aerial imagery, determine and map land use change from this imagery, map this change on GIS and determine if such changes required consent in terms of the Agriculture EIA 2011 regulations, Forestry Service or Local Authority Development planning.*
- *For each relevant land use change identified, a determination should be made on whether it required consent and where consent was required, document each stage of the planning process followed, including documenting responses from referee agencies as identified.*

Engagement

The tender will be expected to liaise with LAWPRO, Department of Agriculture Fisheries and the Marine (DAFM) and Kerry County Council and where appropriate agencies involved in the planning referral system (e.g., National Parks and Wildlife Service, Inland Fisheries Ireland etc.) This will include a minimum of 5 meetings with LAWPRO.

Determination

- 1) what land changes (due to agricultural and forestry activity) has occurred within specific catchments (listed below) since the 2011 EIA (Agriculture) regulations came into effect
- 2) what **consent processes** were required (if any) in allowing those land changes. “consent process”– can be planning permission, a section 5 exemption and/or consents from DAFM (including appropriate assessment) or Activity Requiring Consent from National Parks and Wildlife Service.
- 3) How the consenting process was applied to the catchment areas, taking into account cumulative effects on water quality and habitats. This includes correspondence between consenting authorities and prescribed bodies within the consenting process.
- 4) Provide statistics that provide an evidence-based understanding of the planning process followed (e.g., number of developments that met criteria requiring planning or consent, number obtained, number of referrals to agencies and responses)
- 5) Make recommendations to improve controls based on the information gathered.

The approach

- I. Identify the baseline land use in September 2011 using various datasets (available aerial and satellite imagery)
- II. Identify the existing land use in 2022/2023
- III. Identify the changes *due to agricultural and forestry activity*, specifically activities as defined in regulations that relate to *drainage of wetlands and restructuring/uncultivated use and land reclamation*. All these “activities” are defined. This includes commercial forestry.
- IV. With that information then investigate what “consents” were sought, if any, and finally the response given including responses, if any.
- V. Make a determination on whether cumulative impacts were taken into account.
- VI. Report on the findings with quantitative statistics and make recommendations based on the findings in explaining the impacts on water quality and habits in the study areas.

Focus areas

- Caragh_010
- Caragh_020
- Owenroe (Caragh)_010
- Milltown (Kerry)_010
- Milltown (Kerry)_020



MILLTOWN (KERRY)_010
MILLTOWN (KERRY)_020

CARAGH_020 CARAGH_010
OWENROE (CARAGH)_010



Photos David Hegarty



Caragh_010

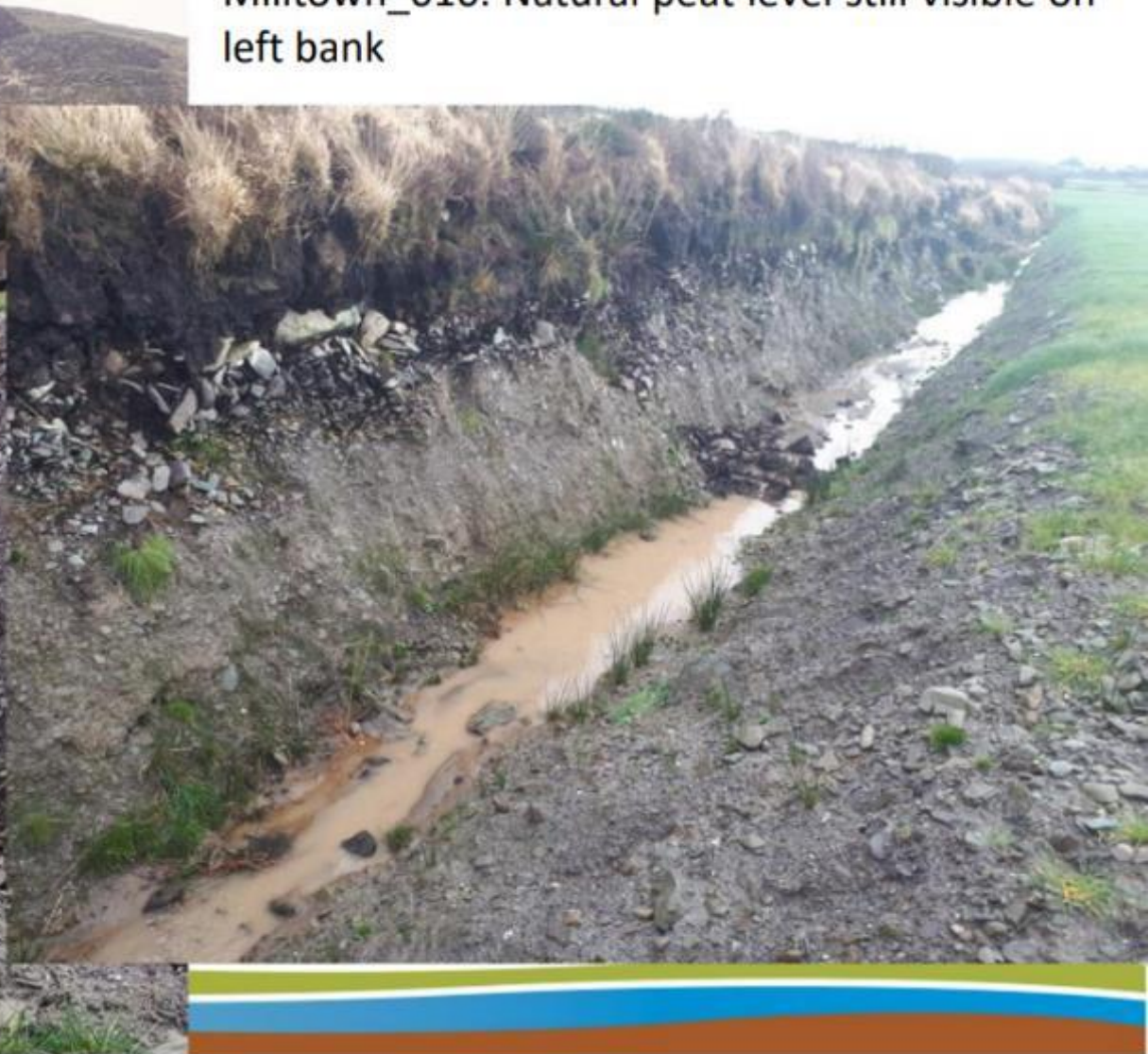


Caragh_010, just
upstream of EPA
WFD mp ★



Deep drain with exposed banks through newly improved land in Milltown_010

Drain carrying sediment to main channel in Milltown_010. Natural peat level still visible on left bank



Task 1

- *Confirm the most appropriate dataset (or aggregation of datasets) that will enable the assessment.*
- *Desk based assessment to determine extent of land use change in the project area due to land restructuring (drainage, reprofiling of fields etc, hedgerow removal etc) from 2011 to present.*
- *Using existing aerial imagery, map on GIS and estimate the extent of change. Include specific mention of areas of reclaimed blanket bog, wetlands / semi natural areas in this assessment. On completion of Task 4 outline the consent process followed for each determination.*

Task 2

- *For post 2011, using Kerry County Council's online planning enquiry system (iplan), identify:*
 - i) *how many planning applications were received relating to land use change (restructuring, wetland drainage, land reclamation) – for activities that may impact on a Natura 2000 site*
 - ii) *how many applications were granted*
 - iii) *where consent was received, total land area involved and summarised list/types of conditions applied*
 - iv) *for applications which were refused, total land area involved and reasons for refusal in each case -*
 - v) *no. of landowners associated with each*

Task 3

- *No. of applications received by Department Agriculture Food and Marine for AA or EIA screening. Thresholds for EIA in the table below or “**Significant effect on the environment**”.*
- *Determine the cumulative impact of activities in terms of the EIA or AA assessment and how this was managed.*

Thresholds for screening applications and mandatory EIA <i>(Areas (or lengths) of works undertaken in any one year or the sum of such areas over a 5-yr period, beginning 8.9.2011.)</i>		
Type of on-farm activity:	Screening by DAFM required:	Mandatory EIA
Restructuring of rural land holdings - Length of field boundary to be removed OR - Area of lands to be restructured by removal of field boundaries	Above 500 metres Above 5 hectares	Above 4 kms Above 50 hectares
- Recontouring (within farmholding)	Above 2 hectares	Above 5 hectares
Commencing to use uncultivated land or semi-natural areas for intensive agriculture	Above 5 hectares	Above 50 hectares
Land drainage works on lands used for agriculture	Above 15 hectares	Above 50 hectares

Task 3

- This assessment will include
 - How many applications were determined to require AA or full EIA.*
 - List EIA assessment criteria used e.g. Natura 2000, WFD, Biodiversity, etc*
 - List EIA screening assessment criteria thresholds used.*
 - How many applications were forwarded to a prescribed body for screening?*
 - Document what was the response of the prescribed body?*
 - How many times was expert opinion sought?*

Task 4

- *Determination of forestry activities in the area,*
- *Take forestry into account in the determination of land use change and impacts of other agricultural activities*

Task 5

- *Conclude in general on the impacts (including cumulative) of the above in explaining observed declines in water quality from hydrological, morphological and sedimentation budget perspectives.*
- *Make recommendations where improvements in the planning system can be made including making provision for cumulative impacts .*
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- The project team must include a geomorphologist with a minimum of five years' experience and demonstrated expertise in the fields of remote sensing, mapping and assessment of anthropogenic impacts on natural processes. Evidence of same should be submitted with the tender.
- Applicants are required to demonstrate how it is proposed to deliver on each of the project objectives as described in Tasks 1 to 5.

Possible Gaps

Knowledge Gaps

- Are the landowners aware of the Statutory Provisions?
- Are advisors aware?
- Are cumulative impacts adequately addressed in the Statutory Provisions (farm scale only...)
- Is there a lack of knowledge re protect measures for sub-threshold activities?
- Impact of increased BPS payments due to convergence (large extensive farms, poor lands).

Implementation Gaps

- Is the activity being undertaken without consent *or*
- is it not being undertaken in compliance with the consent received?
- What about follow-up/compliance assessment/enforcement?
- If we're relying on self compliance, is this appropriate? Referral process?
- Restoration measures, particularly for reclaimed blanket peat and heath
- Risk associated with exempted activities (e.g. drain maintenance) Land drainage thresholds relate to the area of drain and adjoining land
- Cumulative impacts

Policy Gaps

- Ongoing move towards increasing agricultural productivity on unsuitable lands
- No incentive NOT to drain/reclaim
- Cumulative impacts

Where we are

- Consultants appointed (cBEC)– August 2023
- Mapping using available satellite imagery of potential land use change – need for ground truthing
- Local knowledge/findings communicated from Inland Fisheries Ireland and LAWPRO catchment assessments and info from EPA/.
- Controlling authorities have been contacted for access for information – DAFM advised to go through AIE process (due end of Jan)
- Need full support from consenting authorities (including DAFM, NPWS and Kerry CoCo)
- Wrap up – hopefully Q3
- Should inform measures/policy for 3rd RBMP cycle.