



**Economic Advice & Related Services  
to Support Development of a New  
Rural Support Scheme for Scotland  
RESAS/005/21**



**Protection of Peatlands and  
Wetlands – a potential new GAEC**

# Protection of Peatlands and Wetlands – a potential new GAEC measure for Scotland

An output to RESAS as part of commissioned project on Economic Advice & Related Services to Support Development of a New Rural Support Scheme for Scotland

Output Ref: RESAS/005/21 – W10

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January 2023

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This work draws on various pieces of ongoing and completed research undertaken by scientists at the James Hutton Institute. This includes analysis undertaken through [Land Use Transformations](#) – JHI-C3-1 as part of the ongoing 2022–2027 Strategic Research Programme



## Key Points

- The Scottish Government are committed to enhanced conditionality for future agricultural support. As part of the transition to future agricultural support schemes there is an opportunity to help transition towards future schemes by introducing additional conditions (cross compliance) through existing support schemes in 2025.
- The protection and enhancement of Scottish wetlands and peatlands offers potentially significant emission reductions and biodiversity improvements. The focus on peatland and wetland emissions has increased since national inventory methodology changes to the LULUCF to account for wetlands and peatlands moved LULUCF from a net sink of 5.4Mt CO<sub>2</sub>e to a net source of 2.7MtCO<sub>2</sub>e.
- A combination of actions across the proposed 4-Tier policy model could be used to seek protection and enhancement of peatlands, possibly in terms of Bronze/Silver/Gold standards as suggested by ARE officials to ARIOB.
- In particular, Tier 1 cross compliance and Tier 2 conditionalities offer opportunities to enrol a high proportion of relevant land. This reflects the fact that wetlands and peatlands are widely distributed across Scotland, albeit particularly prevalent in the existing Region 3 of the Basic Payment Scheme.
- Tier 1 conditionality could take the form of restrictions on cultivation, drainage installation, stocking density, tree planting, conversion of permanent pasture on peatland to cropland, etc could be included. This would mirror inclusion of 'Protection of wetlands and peatland' within the new Good Agricultural and Environmental Condition (GAEC2) applied under the Common Agricultural Policy, thereby helping to maintain alignment with EU regulations.
- Tier 2 enhanced conditionality could then include blocking of hill drains, reduced stocking density, moorland management plans, restrictions on cultivations on peatlands used for cropping.
- Tiers 3 and 4 could then include support for more capital-intensive restoration actions (e.g., revegetating bare peat) and more demanding on-going management (e.g., intermittent scrub clearance, more radical stock reductions).
- In common with other specific policy objectives, the boundaries between different Tiers are not necessarily fixed, meaning that particular measures may switch Tiers over time.
- Consideration of effects and potential consequences of any Tier 1 cross compliance or Tier 2 conditionality on common grazing peatland / wetlands would need careful consideration, since individual crofters may not have the capacity or abilities to manage common grazing peatland areas.
- There is considerable expertise on peatland and wetlands within the Strategic Research Programme and a body of evidence (definitions, maps, etc) is available within the James Hutton Institute.

## Background

1. The Scottish Government announced that Scotland's future agricultural support framework will require more cross-compliance-type conditions to be met by farmers and crofters. In addition, the Scottish Government have announced that new conditionality options for existing support schemes will be introduced to meet the commitment that 50% of support will have enhanced conditionality by 2025.
2. Considerable greenhouse gas (GHG) emissions arise from degraded and dried wetlands. Recent changes in the Land Use Land Use Change and Forestry (LULUCF) national inventory methods<sup>1</sup> to include peatlands and wetlands meant the sector went from a significant net sink (-5.4Mt CO<sub>2</sub>e) of GHGs to a significant net source (+2.7Mt CO<sub>2</sub>e) in Scotland. The 8.1 Mt CO<sub>2</sub>e methodological swing in LULUCF emissions represented more than the entire 7.4Mt CO<sub>2</sub>e emissions from Scottish agriculture.
3. In Scotland wetland and peatland protection/enhancement offer opportunities to improve baseline (Tier 1) and enhanced (Tier 2) conditionality whilst also offering opportunities for elective and complimentary support (Tier3/4). Considerable benefits for climate change mitigation and adaptation, alongside potential biodiversity improvements may be achievable with the right focus on peatlands and wetlands given their importance as soil carbon stores and habitats.

## EU alignment – GAEC 2 within the CAP

4. The Scottish Government are committed to maintaining regulatory alignment with the EU where practicably possible. Within the new CAP (2023–2027) the importance of peatlands and wetlands as stores of soil carbon (as well as provisioning other ecosystem services related to water and biodiversity) has been recognised.
5. EU Member States (MS) must now ensure appropriate protection of wetlands and peatlands from 2023 (with many MS afforded derogations to 2025 claim year). This protection is afforded through a new cross compliance condition, specifically through Good Agricultural and Environmental Condition standards 2 (GAEC 2) on the '**Protection of wetland and peatland**'.<sup>2</sup>
6. With large proportions of Scottish farmland classified as wetland and peatland there is therefore considerable scope and rationale for Scotland to adopt a similar GAEC in Tier 1 of future support, as well as Tier 2 conditionality actions (similar to CAP eco-

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<sup>1</sup> See

<https://www.fensforthefuture.org.uk/admin/resources/downloads/beisukpeatlandghgemissions-2019.pdf> and [Scottish Greenhouse Gas Emissions 2019 \(www.gov.scot\)](http://www.gov.scot)

<sup>2</sup> Regulation (Eu) 2021/2115 of the European Parliament and of The Council – '*The Strategic Plan Regulation*' [Publications Office \(europa.eu\)](http://europa.eu)

scheme options on rewetting wetlands/peatlands)<sup>3</sup> that could help maintain and improve peatland and wetland conditions.

7. The EU regulation states that “Member States, when establishing GAEC standard 2, shall ensure that on the land concerned an agricultural activity suitable for qualifying the land as agricultural area may be maintained.”
8. Maintaining agricultural activity remains a priority for many Scottish agricultural stakeholders, yet some areas of peatland in Scotland are made eligible through ‘Alternative Practice’ where no agricultural activity is present, but an environmental audit has been completed. The potential carbon and habitat management benefits of maintaining alternative practices as a proxy for ‘activity’ need to be considered in any future definitions of activity within Scotland.

### **GAEC 2 – a missed opportunity?**

9. In their assessments of Member States’ CAP Strategic Plans, the European Environmental Bureau (EEB) and Birdlife International (2022)<sup>4,5</sup> concluded that Member States were **weakly implementing or delaying GAEC 2** despite their opinion that *“Restoring drained peatlands used in agriculture is easily the single measure which could have the greatest climate benefit, the lowest cost for policy-makers, and the fewest farmers affected.”*
10. This assertion of the importance of restored peatland / wetlands resonates with the latest Land Use, Land Use Change and Forestry (LULUCF) national inventory methodology that means that Scotland’s degraded wetlands and peatlands are now a significant net emitter of GHGs and an important hurdle in meeting Scotland’s climate change targets.
11. EEB and Birdlife highlight that within the CAP there is limited incentive to restore / rewet peatlands used for agriculture as such actions could lead to the land becoming ineligible for direct support due to definitions of ineligible features, a point also raised by Moxey (2016).<sup>6</sup> They call for changes in the rules regarding eligibility of restored peatlands and wetlands no longer utilised for agricultural activity.
12. The nature and extent of peatlands varies considerably over the EU, varying from highly productive low-lying fens, to low productivity rough grazing regions more familiar in Scotland. In the Commissions summary of CAP strategic plans<sup>7</sup> they note that *“the level of protection proposed varies from one Member State to another*

<sup>3</sup> [factsheet-agri-practices-under-ecoscheme\\_en\\_0.pdf \(europa.eu\)](#)

<sup>4</sup> [Analysis-Peatlands-Wetlands-CAP-strategic-plans-April2022.pdf \(birdlife.org\)](#)

<sup>5</sup> [New\\_CAP\\_Unpacked.pdf \(birdlife.org\)](#)

<sup>6</sup> [Andrew Moxey Assessing the opportunity costs of peatland restoration revised v2.pdf \(iucn-uk-peatlandprogramme.org\)](#)

<sup>7</sup> [https://agriculture.ec.europa.eu/system/files/2022-07/csp-overview-28-plans-overview-june-2022\\_en.pdf](https://agriculture.ec.europa.eu/system/files/2022-07/csp-overview-28-plans-overview-june-2022_en.pdf)

(though it often includes restrictions on further drainage as well as tillage and/or conversion)."

13. EEB and Birdlife International reported some of the conditions that MS are using for GAEC 2, summarised in Table 1.

**Table 1 Examples of GAEC 2 restrictions detailed in selected CAP Strategic Plans**

Member State	GAEC 2 restrictions
<b>Austria</b>	<ul style="list-style-type: none"> <li>• Prohibits peat extraction / burning</li> <li>• Prohibit new drainage</li> <li>• Prohibit deep ploughing (30cm)</li> <li>• Permits renewal of existing drainage</li> </ul>
<b>Belgium–Flanders</b>	<ul style="list-style-type: none"> <li>• Restrictions only apply on Natura 200 sites</li> </ul>
<b>Denmark</b>	<ul style="list-style-type: none"> <li>• Nitrogen use restrictions on soils with &gt;6% carbon (171,000 ha)</li> <li>• Tillage prohibited within protected areas where &gt;12% soil carbon</li> </ul>
<b>Latvia</b>	<ul style="list-style-type: none"> <li>• Renewal and installation of drainage is permitted conditional on not increasing GHG emissions unless it has other benefits (e.g. water quality)</li> <li>• Ploughing wetlands restricted to once in 5–year period</li> </ul>
<b>Lithuania</b>	<ul style="list-style-type: none"> <li>• Ploughing, drainage, and reconstruction of drainage remain permitted on peatland used for agriculture</li> </ul>
<b>Netherlands</b>	<ul style="list-style-type: none"> <li>• Maintain agreed water levels in peatbogs</li> </ul>
<b>Germany</b>	<ul style="list-style-type: none"> <li>• Peatlands and wetlands must be identified and reported as designated areas in accordance with German law</li> <li>• Drained peatlands used as grassland cannot be converted to cropland</li> <li>• Peatland used as cropland are limited to 30cm plough depth</li> <li>• Paludiculture is permitted in areas that are not permanent grassland designated areas</li> <li>• Changes in drainage require approval (providing there is no increase in drainage levels) and new drainage is permitted with environmental authority approval</li> </ul>
<b>Sweden</b>	<ul style="list-style-type: none"> <li>• Compliance with existing national legislation on water management and soil drainage</li> <li>• New drainage of peatland is prohibited unless approval from authorities</li> <li>• Peatland drainage renovations and fertilisation of peatland used for agriculture are permitted</li> <li>• Ploughing on peatland used for agriculture is permitted but restricted to once every 4 years for permanent grassland.</li> <li>• Fertilisation on peatland used for agriculture is permitted</li> </ul>

Source: EEB & Birdlife International (2022)<sup>8,9</sup>

14. EEB and Birdlife International report that insufficient data and mapping (including in the Republic of Ireland<sup>10</sup> where there is also industry resistance<sup>11</sup>) is the most common excuse provided by MS for delaying GAEC 2 coming into force, despite MS reporting climate change emissions from such land under climate obligations. They suggest

<sup>8</sup> [Analysis–Peatlands–Wetlands–CAP–strategic–plans–April2022.pdf \(birdlife.org\)](#)

<sup>9</sup> [Briefing–Peatlands–and–Wetlands–No–Branding.pdf \(eeb.org\)](#)

<sup>10</sup> [observation–letter–ireland\\_en\\_0.pdf \(europa.eu\)](#)

<sup>11</sup> <https://assets.gov.ie/200065/552aac3-a0cf-4479-8f18-48dd405101a5.pdf>

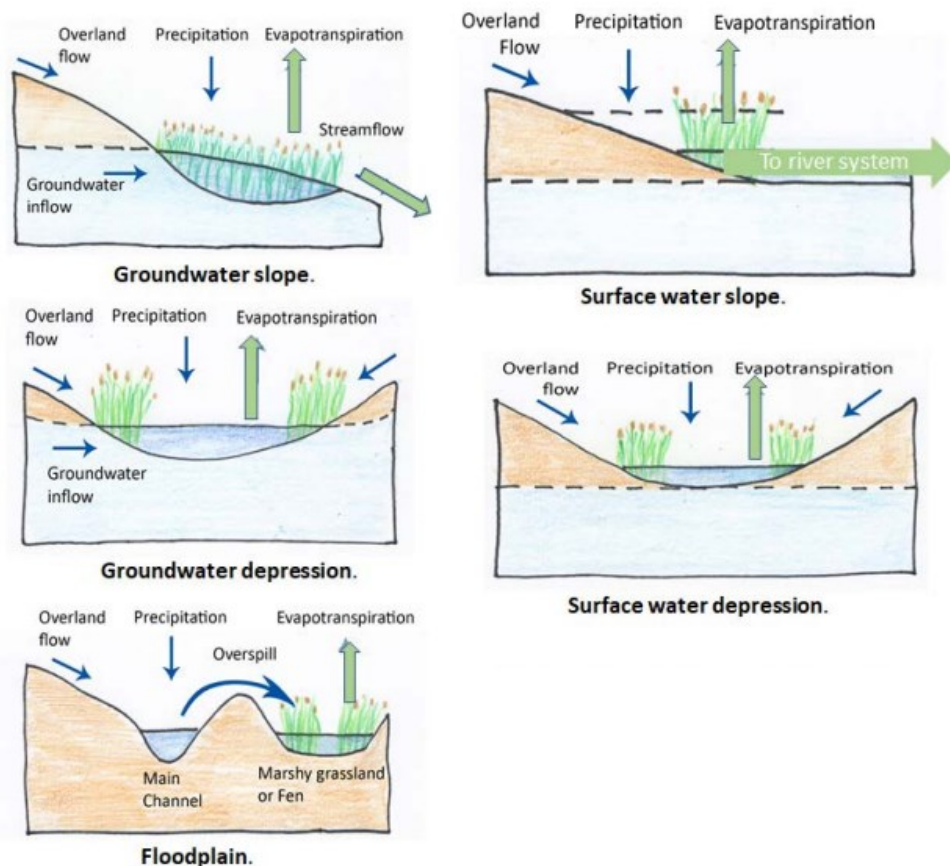
that as the data exists it should be relatively straightforward to incorporate the data into LPIS.

15. The EU's Joint Research Centre is supporting work on defining and mapping wetland and peatland areas<sup>12</sup>. On these technical issues Scotland would appear to be in a strong position to mirror GAEC 2, specifically in addressing 50% enhanced conditionality commitments by 2025 within the existing support structures.

## Defining Wetlands in Scotland

16. Existing research for Crew (Hare et al 2022<sup>13</sup>) identified 18 wetland habitat types, classified as uplands, lowlands, wet woodlands or wet grassland/floodplain meadows. 5 hydrological types were used to group the wetland habitats for their role in water availability, specifically (i) Groundwater Slope; (ii) Surface Water Slope (iii) Ground Water Depression; (iv) Surface Water Depression (v) Floodplain along with Unspecified Wetlands (wetland but not assigned to another type). These are illustrated in Figure 1.

**Figure 1 Five Hydrological Wetland Types (Figure 2.1 from Hare, et al, 2022)**



**Figure 2.1** The five hydrological wetland types based on Bullock and Acreman (2003) used in this study. Blue arrows show source of water (inflows). Green arrows show connectivity (outflows) to the hydrological system (S. Donaldson-Selby, adapted from Cooper and Merritt (2012)).

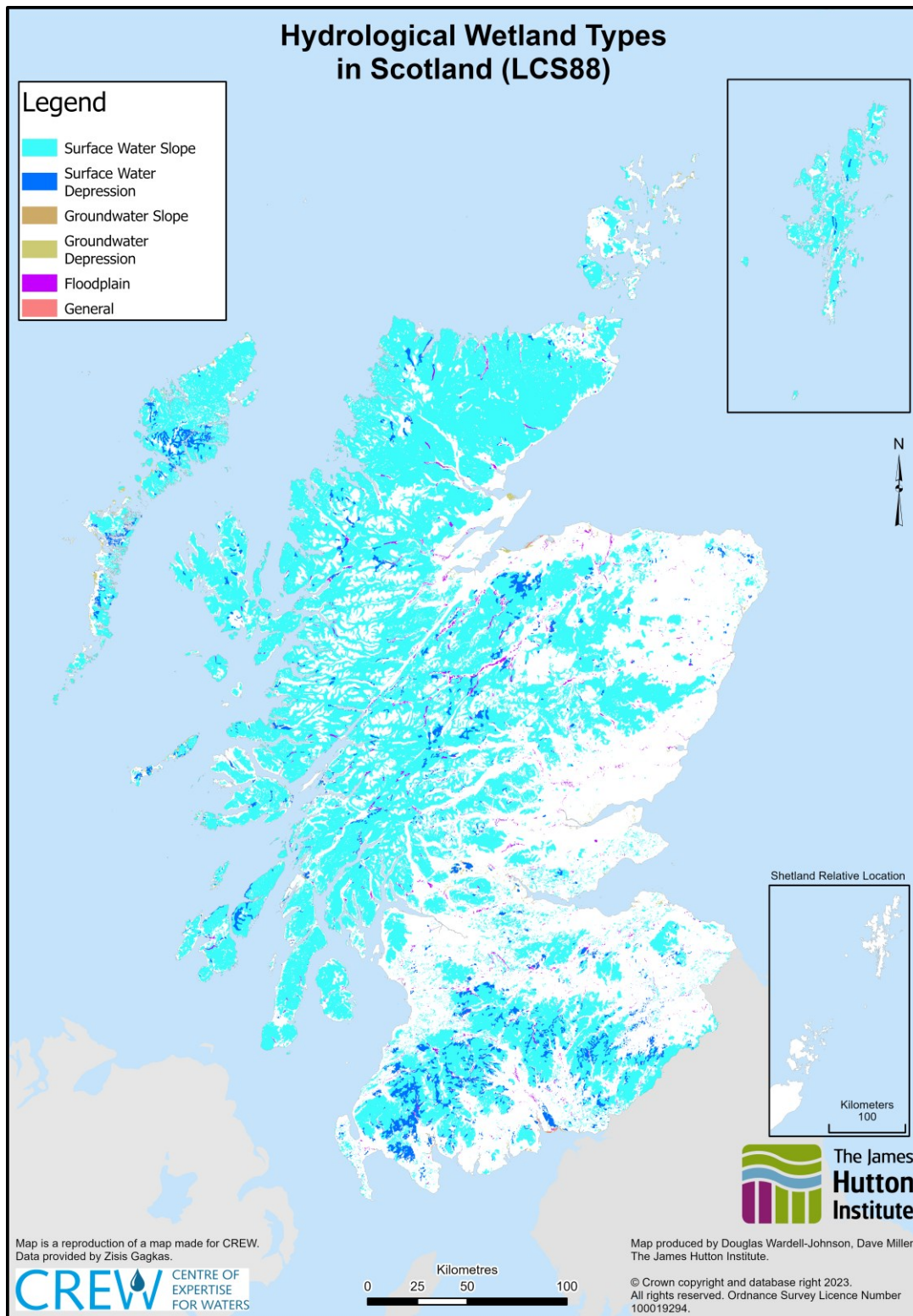
<sup>12</sup> [JRC130622.pdf \(europa.eu\)](#)

<sup>13</sup> [\[Moderating extremes in water availability: a review of the role of functioning wetlands\] | CREW | Scotland's Centre of Expertise for Waters](#)

17. An alternative hydrological map based EU Nature Information System (EUNIS) data is provided in Annex 1.
18. Figure 2 shows a map of these different hydrological wetland classes across Scotland based on [Land Cover of Scotland 1988](#) (LCS88) data, noting most wetland areas across Scotland are of 'surface water slope' type. An alternative hydrological map based [EU Nature Information System](#) (EUNIS) data is provided in Annex 1.

***Figure 2 Map of predicted wetland areas in Scotland based on LCS88 (Hare et al, 2022)***





19. Table 2 shows the number of Single Application Form (SAF) businesses (Business Reference Numbers – BRNs) by the area of peatland on their business, with the area of wetland on these businesses included. Across Scotland c.14k businesses have wetlands present with peatland on these businesses extending to c.1.85 million hectares (Ha). 57% of that peatland is present on 321 businesses that have more than 1,000 Ha of peatland. Ongoing analysis demonstrates that most peatlands are likely classified as wetlands but not all wetlands are peatlands.

20. Using two different underlying land cover data sets Table 2 also shows the estimated areas and types of wetland present based on Land Cover Scotland data and EU Nature Information System data<sup>14</sup>. The area of 'surface water slope' is estimated to fall between c.1.47m Ha and c.1.9m Ha, with a further c.78k–96k Ha of 'surface water depression, c.16k–20k floodplain and c.2k–8k 'ground water depression'.

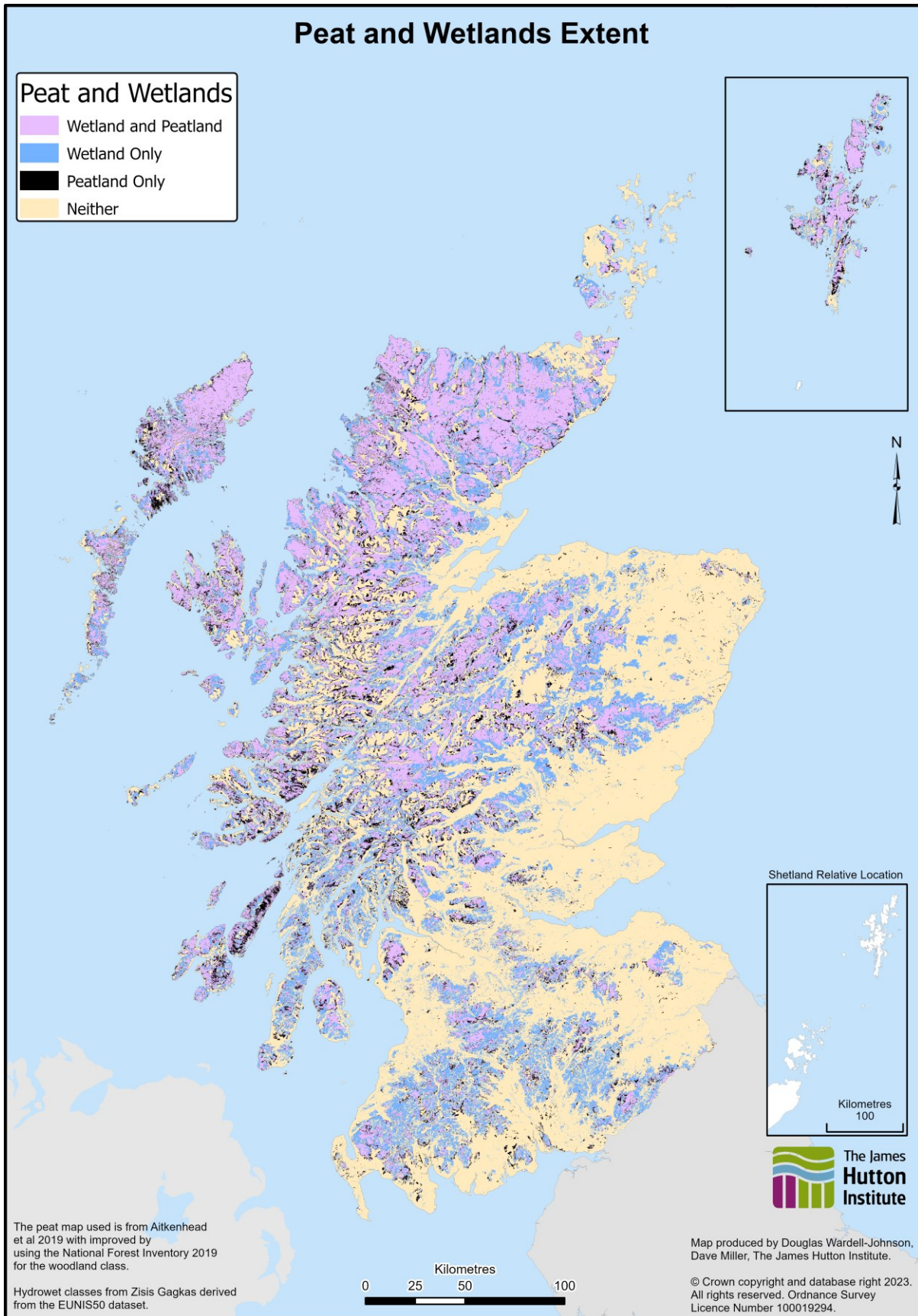
**Table 2 Area of peatland and wetland typologies expressed by area of peatland coverage by SIACS business, 2019**

Area of Peat per Business	SAF business count	All Peat (>50cm Mat Aikenhead)	Surface Water Slope (LCS88)	Surface Water Depression (LCS88)	Ground Water Slope (LCS88)	Ground Water Depression (LCS88)	Floodplain (LCS88)	Sum of Unspecified Wetland (LCS88)	Surface Water Slope (EUNIS)	Surface Water Depression (EUNIS)	Ground Water Slope (EUNIS)	Ground Water Depression (EUNIS)	Floodplain (EUNIS)
0-100	11,739	160,371	307,582	26,432	125	5,902	9,420	444	224,597	20,467	29	1,866	8,301
100-200	904	126,862	178,293	11,530	8	800	1,192	26	143,063	9,754	6	210	1,032
200-300	407	99,015	136,140	8,516	0	209	1,142	14	103,635	6,554	0	48	978
300-400	217	75,222	98,126	5,129		219	575	1	77,662	3,628		110	526
400-500	150	67,162	79,394	5,993		137	302		58,568	4,998		44	288
500-600	116	63,713	85,449	5,000		172	826		61,977	4,064		31	709
600-700	91	59,329	66,097	2,383	4	228	520		52,877	1,923	5	13	396
700-800	70	52,313	57,939	3,426		13	319	-	45,391	2,641		3	204
800-900	59	49,583	55,984	2,152		51	127		42,063	1,932		35	158
900-1000	43	40,499	44,080	2,079		16	457	23	33,379	1,783		0	331
>1000	321	1,056,638	789,444	23,744	42	317	5,497	12	627,065	20,296	38	71	3,455
<b>Grand Total</b>	<b>14,117</b>	<b>1,850,708</b>	<b>1,898,530</b>	<b>96,382</b>	<b>179</b>	<b>8,066</b>	<b>20,378</b>	<b>520</b>	<b>1,470,278</b>	<b>78,040</b>	<b>78</b>	<b>2,430</b>	<b>16,379</b>

21. Figure 3 highlights where areas of peatland and wetlands intersect, and where peatlands are not classified as wetlands, or wetlands not classified as peatlands. This demonstrates the nuances between available definitions and importantly from a GAEC / conditionality perspective where these defined wetland / peatland areas are located.

<sup>14</sup> Land cover layers used were: (i) [Land Cover of Scotland 1988](#) (LCS88) updated with forestry data from the [National Forest Inventory](#) (2019), and: (ii) [EU Nature Information System](#) data combined with the [SLAM-MAP](#) land cover mapping (2020).

Figure 3 Areas of defined peatland, wetlands and where peatlands and wetlands intersect

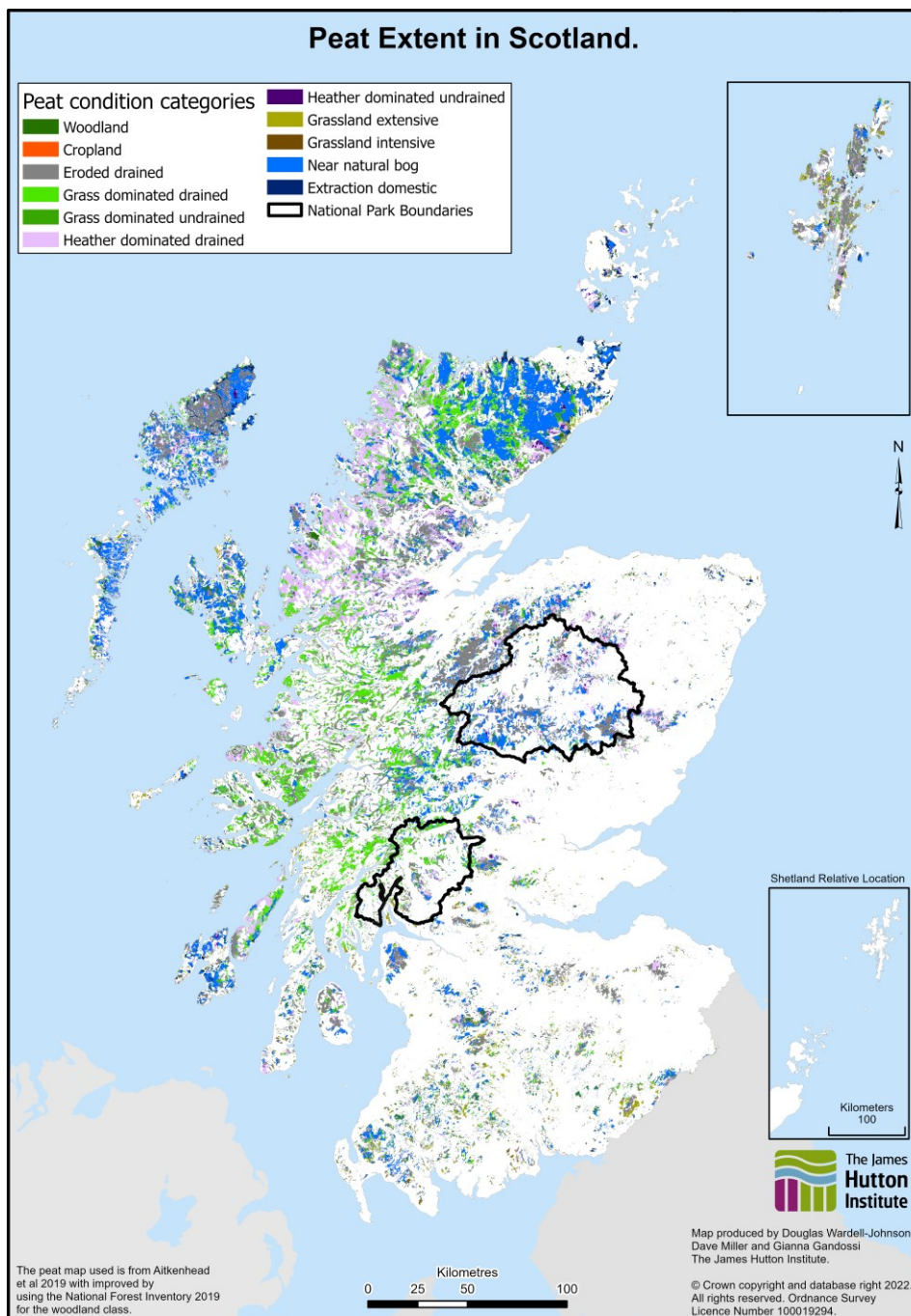




## Peatlands in Scotland

22. Figure 4 details the location and classification of peatland in Scotland as defined by Aitkenhead et al (2019) updated using the National Forest Inventory. **Peatland was classified where 50 cm of the top 100 cm are determined to be peat<sup>15</sup>** and the extent of peatlands would change should a different depth threshold be used.

**Figure 4 Estimated peatland extent and condition in Scotland**



<sup>15</sup> There remains some uncertainty in the classification of cropland (where temporary grassland perhaps needs to be included) and the boundary between intensive/extensive grassland classes and also between extensive and grass dominated classes.



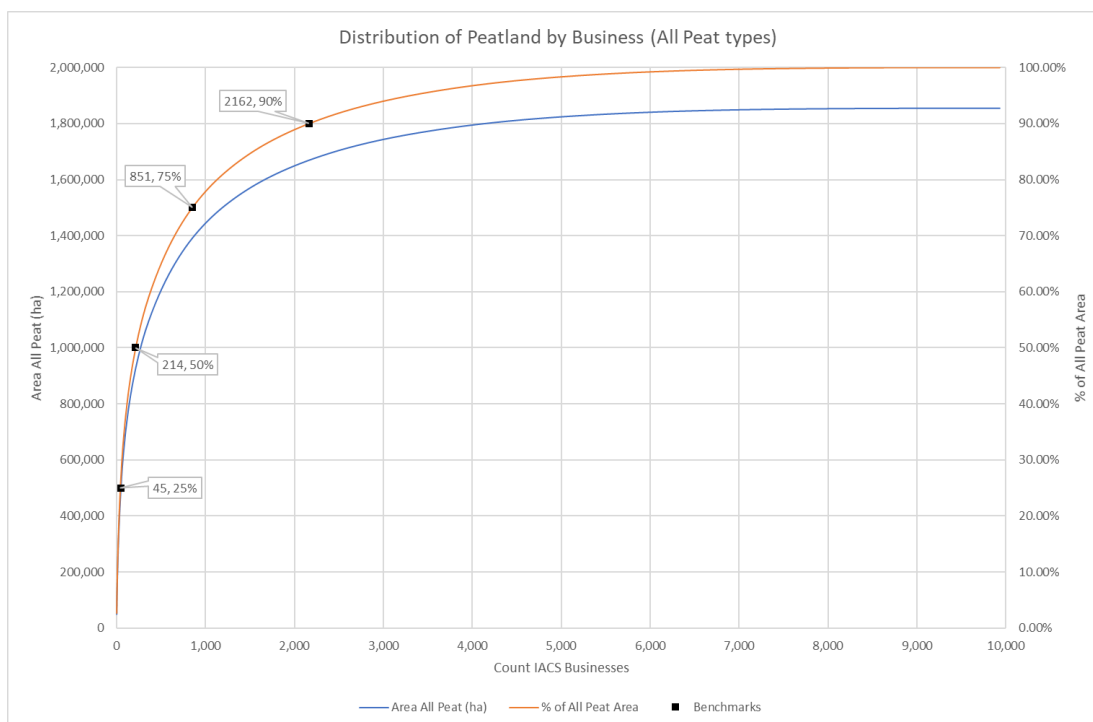
23. In 2018 Scotland's c.1.85m Ha of peatland were estimated to include 26% in 'near natural' state, 26% as 'eroded drained', 18% 'grassland dominated drained', 17% 'heather dominated drained', 5% 'crop and grassland extensive' and 4% 'woodland'. It is notable that there are large concentrations of 'near natural bog' peatland in Caithness, the Western Isles, Skye and Islay. Shetland, Lewis and the Monadhliath mountains have large concentrations of 'eroded drained peatland' and there are large, dispersed areas of 'grassland dominated drained' across much of the west central Highlands and Sutherland.

## Businesses affected by Peatland

24. Figure 5 shows the distribution of peatland across SIACS businesses (noting that there was c.422k Ha of peat in non SIACS businesses in 2019). It is notable that 25% of the peatland is located on only 25 businesses, with 50% found on 214 businesses, 75% on 851 businesses. This demonstrates that there are a large number of businesses with relatively small areas of peatland. All of these businesses would potentially be affected by any new GAEC / conditionality measures, and consideration should be given to those with very large exposure to peatland – and how a phased transition to new conditionality (T1 or T2) on that land could best be introduced

25. The 311 businesses with >1,000 ha of peat of more than 50cm deep contain 57% of all peatlands extending to c.1m ha, of which 781k ha may need restoration and 275k ha is near natural bog which may still need actions to increase reliance to climate change.

**Figure 5 Concentration of peatlands per business in both area (left y axis) and percentage (right y axis) terms.**



26. The distribution of peatlands by condition category<sup>16</sup> across Scotland is shown in Table 3. This reiterates that there are 7.1k businesses with less than 100 ha of peatland exposure, with only a quarter classified as 'near natural bog' but a further quarter classed as 'eroded drained'. On the businesses with more than 1,000 ha of peat a similar proportion of 'near natural bog' (26%) and 'eroded drained' (24%) with the bulk of the rest classed as 'heather dominated drained' (20%) and 'grass dominated drained' (21%).
27. Peatland on common grazings extended to c.348k ha. Any Tier 1 cross compliance or Tier 2 conditionality measures on commons would need implementation and enforcement considerations given shared common grazing management between crofters.
28. Given the extent of exposure to peatland consideration will need to be given as to the potential impact on businesses of any peatland and wetland GAEC or T2 conditionality. As such, transitioning the proportion of area to be included may be appropriate, or GAEC should focus on stopping further degradation and T2 could support actions to enhance condition or maintenance of restored peatlands.

**Table 3 Distribution of peatland by condition category expressed by area of peatland coverage by SIACS business, 2019**

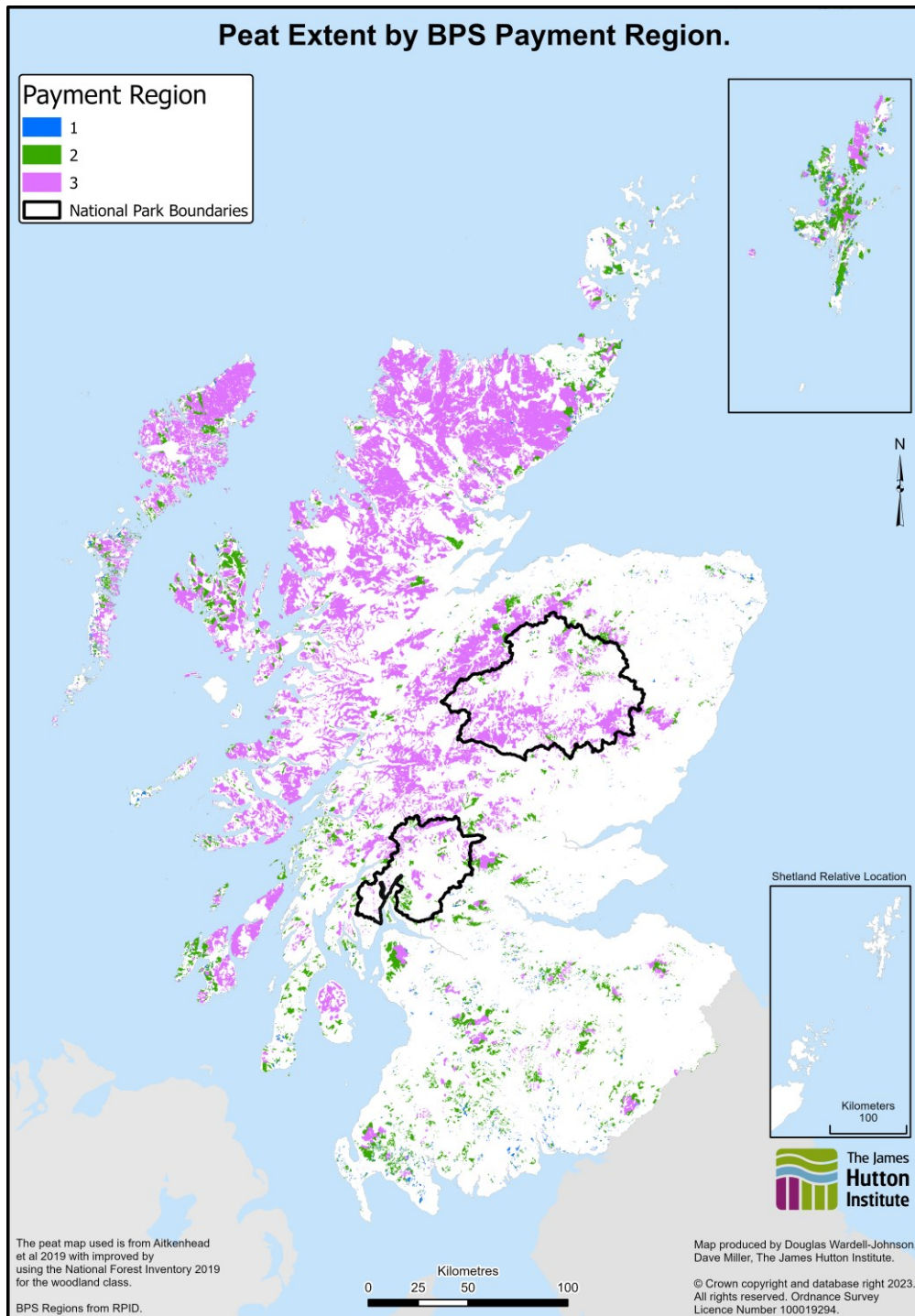
Area of Peat per Business	SAF business count	All Peat (>50cm Aitkenhead rev2)	Cropland (39)	Grassland Intensive (30)	Grassland Extensive (19)	Woodland (10)	Extraction Domestic (8)	Eroded Drained (5)	Grass Dominated Drained (3)	Heather Dominated Drained (3)	Grass Dominated Undrained (2)	Heather Dominated Undrained (2)	Near Natural Bog (0.01)
0-100	7,099	160,371	32	10,106	25,095	8,221	10,000	40,083	12,449	13,799	653	373	39,562
100-200	904	126,862	5	2,008	12,868	6,085	6,099	34,834	12,591	15,749	1,011	641	34,969
200-300	407	99,015	1	1,001	7,782	4,116	4,226	27,860	11,098	14,987	773	631	26,540
300-400	217	75,222	3	580	5,953	2,757	3,189	20,550	8,992	11,362	471	569	20,796
400-500	150	67,162	0	272	4,368	2,886	1,599	18,935	11,274	9,143	1,051	273	17,361
500-600	116	63,713		388	5,203	3,054	970	17,330	9,694	9,126	657	600	16,690
600-700	91	59,329		402	2,892	3,231	1,224	14,861	9,382	10,972	643	478	15,244
700-800	70	52,313		210	2,418	1,798	1,256	14,444	8,657	7,660	1,049	499	14,323
800-900	59	49,583		187	1,523	1,775	648	13,374	8,293	6,775	674	733	15,601
900-1000	43	40,499		164	1,639	1,644	689	11,620	6,818	5,888	681	261	11,094
>1000	321	1,056,638	2	1,441	15,320	37,095	5,396	258,664	225,127	207,607	17,248	13,209	275,529
<b>Grand Total</b>	<b>9,477</b>	<b>1,850,708</b>	<b>43</b>	<b>16,758</b>	<b>85,062</b>	<b>72,661</b>	<b>35,297</b>	<b>472,556</b>	<b>324,375</b>	<b>313,069</b>	<b>24,912</b>	<b>18,266</b>	<b>487,709</b>

29. Should Tier 2 conditionality be established based on land use (i.e., rotational cropland, permanent grassland, and rough grazing) farmers and crofters could be obligated to include a proportion of each type of land under enhanced conditionality (T2). This could help focus T2 actions on making improvements (not full restoration) to the condition of peatland and wetland in rough grazing areas – with the area requiring additional actions increasing over time. Weighting T2 conditions toward enhanced peatland and wetland management could yield societal benefits.

<sup>16</sup> A map book for peatland types for each of the 14 agricultural regions is available as a pdf from [Keith.Matthews@hutton.ac.uk](mailto:Keith.Matthews@hutton.ac.uk)

30. The current BPS payment Regions give an indication of the level of support per ha available. Most of the peat area in Scotland is in R3 (c. 1.48m ha) that has the lowest level of direct support. R2 rough grazing was differentiated from R3 by having higher stocking rates (in LFASS) when the regions were defined. Figure 6 shows that there is only a small amount of R1 peatlands (54k ha) with most peatlands classed as R3. There are geographic differences that reflect historic stocking densities with peatlands dominated by R2 in, for example, Shetland and the south of Scotland.

**Figure 6 Peatland extent by Basic Payment Scheme region, 2019**



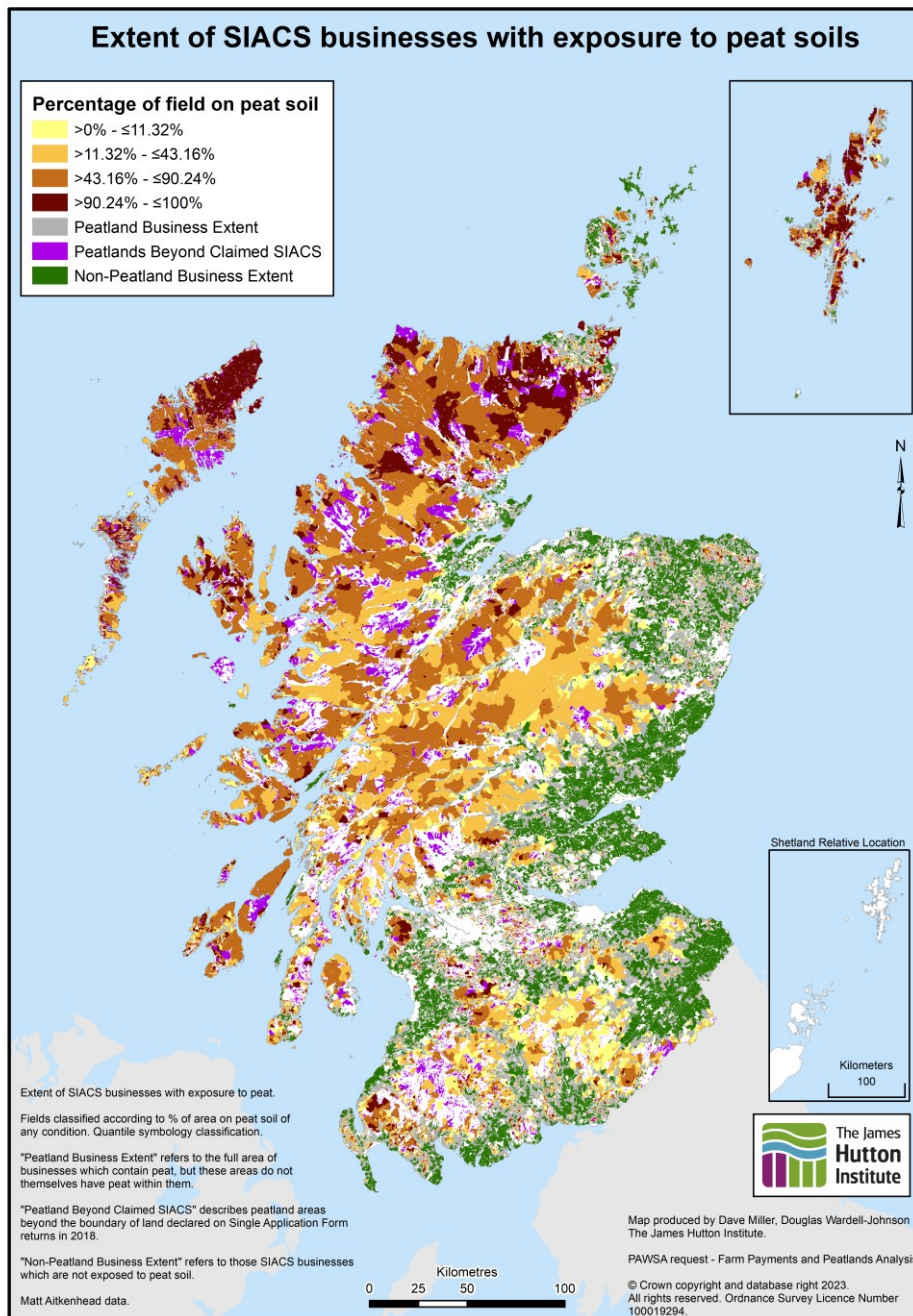
31. The actions required for any peatland GAEC / T2 conditionality will likely be the same on R2 and R3 rough grazing, yet these currently are afforded differentiated payment rates (c. £42/Ha in R2 v £12/Ha in R3). If such T2 conditional action becomes, as proposed, 50% of direct support the current differentiated support levels on RGR may be considered inequitable (i.e., getting different support amounts for undertaking the same conditional actions<sup>17</sup>).
32. The potential interactions between peatland restoration and agricultural support mean that knowledge is needed on which land parcels (or parts of parcels) are being used to activate agricultural payment entitlements.
33. Peat soils often occur as one part of a mix of soils within businesses, both across fields and within fields. The nature of modern agricultural businesses means that they are often not geographically contained, meaning fields in one location may contain peatlands or wetlands whilst fields in other locations do not. To that end the map in Figure 7 highlights those fields (LPIS FIDS) where peats are part of the soils mix in the field.
34. In Figure 7 green areas are FIDs without any peat within farm businesses with no peatland at all, grey areas are FIDs without any peat but within farm businesses that have peatland somewhere, and the yellow-to-brown colour ramp shows the proportion of a FID containing some peat that is actually classified as peat. Non-peatland FIDs occur mostly in the East but pockets of grey shading indicate that some businesses in these areas have peat, possibly on land elsewhere in Scotland (i.e., farm businesses are not necessarily spatially contiguous).

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<sup>17</sup> Note that none of the current greening measures and few direct cross compliance measures require actions on rough grazing.

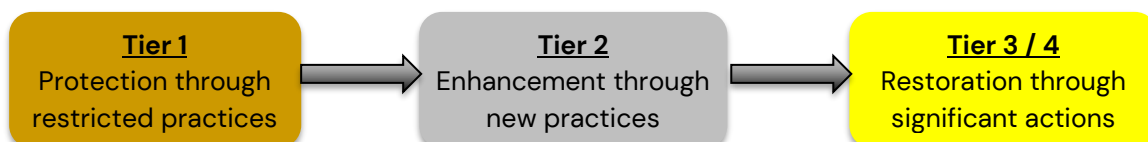


Figure 7 Extent of SIACS businesses with exposure to peat soils, 2019



## Peatland conditionality opportunities for Scotland

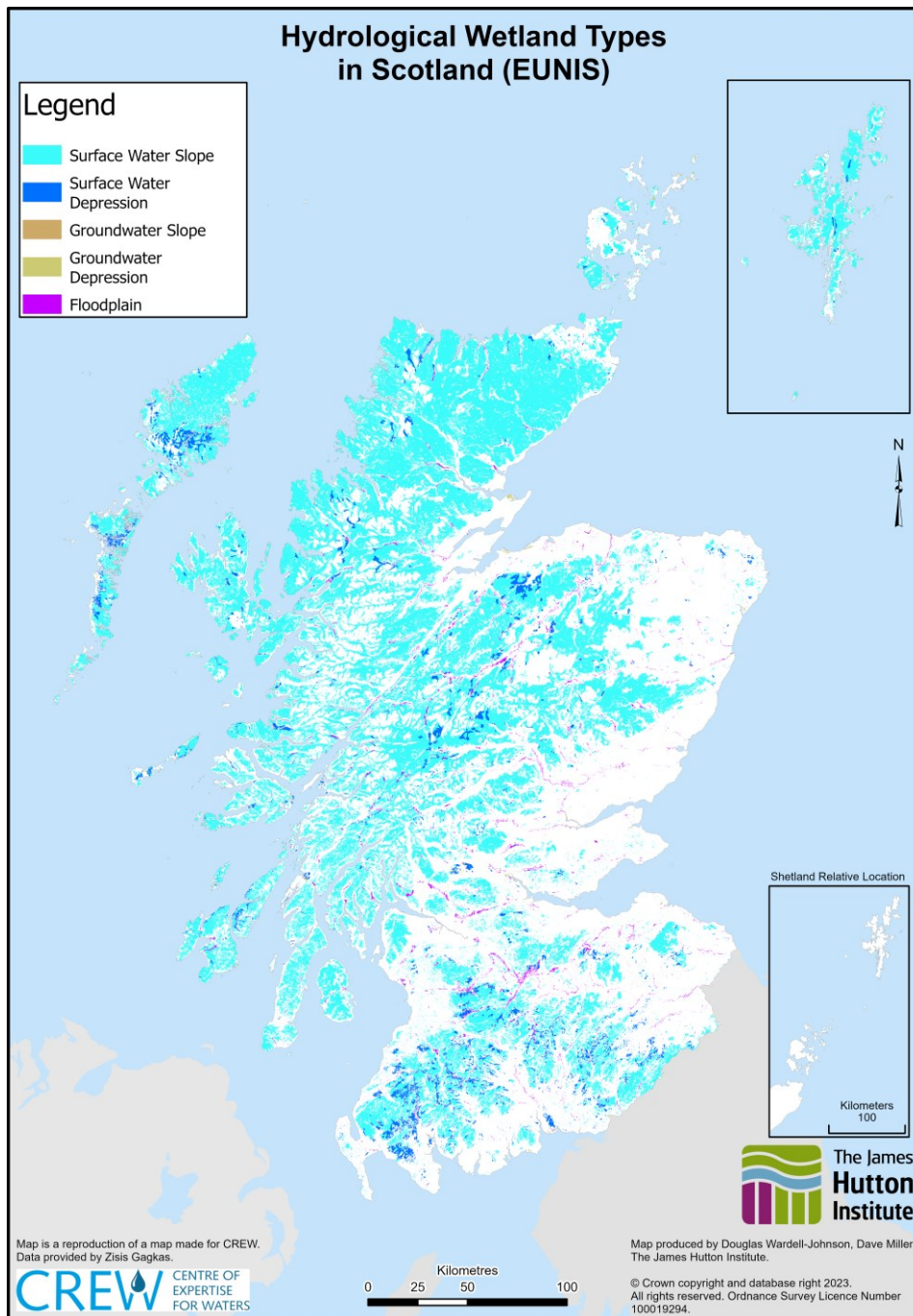
35. There is potential for new peatland and wetland conditionality to be included within Scotland's future agricultural support structures across all Tiers, akin to the principles of Bronze, Silver and Gold standards expressed by ARE officials to ARIOB.




36. It is likely that any conditionality measures (Tier 1 or 2) will likely need to be nuanced, even weighted, around peatland condition typologies. For example, near natural bog may require different actions in comparison to eroded drained, or heather dominated undrained peatlands. This provides opportunities to develop potential GAEC (Tier 1) and enhanced conditionality (Tier 2) rules that reflect the type of peatland present, and target actions to stop their further degradation / improve their condition.
37. Tier 1 conditionality could take the form of a new GAEC measure (aligning to the EU's GAEC 2) where there could be restrictions on activities known to cause damage to peatlands. For example, these could include ditch cleaning, cultivation, drainage installation, liming, tree planting, hill track / hard standing installation without prior approval, application of nutrients, supplementary feeding (including of deer) conversion of permanent pasture on peatland to cropland, etc could be included. These should be designed to ensure there is not further degradation of wetlands and peatlands.
38. Tier 2 enhanced conditionality could be designed to further reduce the risks of peatland degradation (including on near natural bog / restored peatlands) and improve the condition of peatland and wetlands through relatively straightforward management activities. These measures could, for example include simple blocking of hill drains, routine maintenance of peatland dams, appropriate stocking density (reduce grazing pressure, but also avoid accumulation of dried material on peatland surface, moorland management plan, appropriate deer control, restrictions on cultivations on peatlands used for cropping, increased rewetting, etc. Further, any muirburn should be overseen by trained individuals and a muirburn plan (including risk assessment) should be undertaken.
39. The Scottish Government are committed to restoring 250,000 hectares of peatland restoration by 2030, in order to meet the ambitious greenhouse gas emissions reductions, set out in the 2020 Climate Change Plan Update. This will require both upfront capital costs and ongoing monitoring/management costs. Tier 3 / 4 will include peatland restoration support (Tier 4) and could support for stock removal or habitat improvements (Tier 3). Tier 3 support could include capital for fencing / virtual fencing collars / income foregone from stock withdrawal, on highly degraded / restored peatlands, etc. These tiers should focus on higher level actions that require significant capital expenditure, or more fundamental farm system / management changes. Tiers 1 and 2 could cover ongoing management.

## Annex 1


**Figure 8 Map of predicted wetland areas in Scotland based on EUNIS (Hare et al, 2022)**




# Supporting Evidence




**Peat Condition**  
Peat Condition Categories in each  
Agricultural Region  
(MAST Ailsahead data)  
Map book produced by Dave Miller




MAST report – Farm Payments and Profitability Analysis



**Peatland Businesses**  
Extent of exposure to peat soils in  
SIACS businesses in each  
Agricultural Region  
(MAST Ailsahead data)  
Map book produced by Dave Miller



MAST report – Farm Payments and Profitability Analysis



**Emissions Factors**  
Emissions Factors in each  
Agricultural Region  
(MAST Ailsahead data)  
Map book produced by Dave Miller



MAST report – Farm Payments and Profitability Analysis





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