SUSTAINABLE SOILS ALLIANCE

22 January 2021

Response to the:
8 Farming Rules for Water DEFRA Regulatory Review

The Sustainable Soils Alliance (SSA) was launched in 2017 to address the current crisis in our soils. Its aim is to campaign to restore UK soils to health within one generation by seeing soil health elevated to where it belongs as a priority alongside clean air and clean water. The SSA is a non-profit organisation (CIC number 10802764).

Executive Summary:

- The 8 FRfW (the rules) have not been effective because they have not been communicated or enforced.
- Awareness of the rules is extremely low.
- The rules can be strengthened by adding a robust threshold of soil organic matter.
- Compliance with the rules appears to be low and falling.
- There is little incentive to comply with the rules as enforcement is negligibly low.
- Supply chain contractual arrangements may be a stronger influence on farmers to breach the rules, than the threat of enforcement is an influence to comply with them.
- While there are no specific gaps in the rules for water, there is a lack of recognition that rules for soil are needed. We cannot meet any of our environmental targets without protecting soil health.
- Given the climate, water, air, soil and biodiversity crisis, regulations must now go beyond halting degradation and look to restore and regenerate.

1. *To what extent (if at all) do you think the Farming Rules for Water have been effective in reducing nutrient pollution from agriculture?*

The Farming Rules were introduced to achieve regulatory compliance with aspects of the EU Water Framework Directive. These were largely based on existing regulations, legislation and codes of practice that had been in existence since the 1990s. As a result, it is hard to disaggregate the effectiveness of the Rules from other policy measures affecting general water quality and nutrient pollution specifically.

It is also hard to isolate the impact of the rules because so little data seems to have been gathered about their implementation – awareness, behaviour change, incidents, prosecutions etc., that might act as proxies for their environmental impact.

Based on general data about the health of English watercourses, there is no evidence that the Farming Rules for Water (FRfW) have had any effect in reducing nutrient and other forms of diffuse pollution from agriculture.

When considering nutrient pollution, it is important to note that large amounts of farm-derived phosphorus (the primary driver of eutrophication in freshwater) enters watercourses attached to soil particles. Elevated phosphorus levels are the single largest common reason for WFD failures in freshwater with around half generated from farming activities with Sewage Treatment Works (STW) and other discharges accounting for the remaining half.

Our view is that the FRfW were designed to also regulate diffuse sediment pollution as well as nutrient pollution. Not only does sediment transfer phosphorus to watercourses but it is also a pollutant in its own right.

Sediment pollution is an off-site indicator of soil health, and we are concerned that:

- "There is no in-river sediment standard; sediment pressures are assessed by a link to biological element failures, and we do not routinely monitor sediment run-off or in-river siltation, so there is limited collation of regional-to-national data available." EA (2019)
- "Fine sediment pressure in England is responsible for around 5 percent of the counts of reasons for not achieving good status (RNAG). Agriculture and rural land management was the most common responsible sector." EA (2019)
- "In England the most commonly cited reasons for sediment from agricultural and rural land management sources were: Poor soil management (323 of 810 counts, 40%); riparian/in-river activities, includes bankside erosion (116 of 810 counts, 14%) and livestock (106 of 810 counts,13%)." EA (2019)

In other words, water and sediment build-up caused by soil deterioration are closely linked – a topic we will return to below.

2. *What is your view about awareness of the rules among land managers?*

Again, without robust data, we are dependent on anecdotal evidence about awareness levels drawn largely from insights from partner organisations and public events - evidence which leads us to the view that awareness is patchy at best. For example, at a farming cluster meeting in late 2019 in Hampshire, the question was asked of the farmers (generally on the more environmentally aware side of the spectrum) and less than 50% had heard about the 2018 FRfW, let alone operated by them.

If these communities are not being reached, there is little chance of the regular offenders in the farming community (those responsible for the worst incidents) being cognisant of the rules.

This lack of awareness is hardly surprising. There was media coverage of the rules at the time of launch and this was replicated in subsequent NFU bulletins, as well as in the work undertaken by NGOs and CaBA, in particular working with CSF. However, since then there seems to have been little concerted effort to proactively remind farmers of the rules or to keep them on the agenda.

Even if there is awareness about the rules, we suspect there is little awareness about the nuances and details of the rules, and how they are being implemented and enforced. There is also a risk that farmers will be receiving conflicting advice and information through lack of clarity.

Unsurprisingly, without this drumbeat of promotional activity, awareness has stalled or even declined. The situation has been exacerbated by low levels of enforcement - a lack of farm visits and a limited use of penalties.

Some of the soil measures set out in the FRfW were already subject to cross-compliance and over the years farmers have become accustomed to knowing these, however, these have rarely been actively enforced so farmers are unsure of penalties.

As we know, enforcement actions also generate publicity and demonstrate clear government intent. Some stakeholders have expressed the view that the rules were motivated by an EU policy (WFD) – and therefore might be a stopgap until we left the EU and a new regime can be introduced. We hope that a clear articulation that this is not the case will emerge from this process.

By means of context, we have noted that, despite rapidly growing public, political and media attention being paid to soils, coverage/debates rarely give mention to the Farming Rules – despite the fact that they are the principal regulatory mechanism governing soil management as well as cross-compliance.

Finally, there is little evidence of efforts being made in contractual relations - either supply chain contracts or landowner/tenant agreements to draw attention to the rules and assume compliance as a baseline. Since food

producers and landlords have both a responsibility and a vested interest in the long-term sustainability of soils, this is a missed opportunity to improve both awareness and effectiveness.

3. *Can the rules be improved to better meet the above aim of reducing nutrient concentrations in water and providing a proportionate baseline for all farmers?*

As you will know, alongside the FRfW, soil management is governed by BPS cross-compliance rules (GAEC 4, 5, 6) which include providing minimum soil cover, minimising soil erosion and maintaining the level of organic matter in soil. These rules replaced the previous requirement to complete and retain a Soil Protection Review and stand to fall once the transition period from the EU CAP comes to an end.

To maintain the protection offered by these rules, we urge Defra to evaluate their scope and impact as part of this process, and where applicable, integrate them into the FRfW to develop an integrated set of baseline standards. Such an analysis should have the caveat that cross-compliance has had similar 'challenges' with enforcement as the FRfW and was further weakened by a range of in-built derogations.

Cross-compliance rules for soil organic matter content are very weak, with no obligation to measure and no baseline data for existing soil carbon stocks in the majority of farms, there are no mechanisms to establish either compliance or breach. It mainly bans practices which are already abandoned - the closest thing to a baseline is 'no crop residue burning in England'.

We would like to see the creation of a baseline for soil carbon and would draw Defra's attention to the example set in Ireland where a guideline threshold for organic matter (3.4%) is set for farmers applying for the Single Farm Payment.

On inspection, applicants will be required to provide the soil analytical report showing the organic matter levels and where it is less than 3.4% they must also show the CC-FAS report setting out, where applicable, the programme of remedial actions. From 2010 onwards, the inspecting officer will check that the remedial actions listed in the CC-FAS report are being implemented. (2009 Soil Organic Matter Guidance).

As you can see, falling below this threshold triggers the need for advice and the development of a strategy, rather than fines. The 3.4% threshold was chosen because it is the figure below which soil structural stability will suffer a significant decline – and where urgent remediation is needed. However, a fair and helpful threshold should be region-specific to reflect soil types (clay content) and climatic conditions (rainfall).

We would like to see Carbon/Soil Organic Matter added to the list of tests currently required under the Farming Rules/cross-compliance as part of a baseline standard. Currently, the legal requirement is for farmers to test their soil pH, Nitrogen, Phosphorus, Potassium, and Magnesium levels, on cultivated land, a minimum of every 5 years, and we would like to see carbon added to this list. There are a growing number of protocols for measuring and valuing soil health and carbon sequestration that are scientifically robust and practical at a field level that are already being widely applied.

Embedding a soil carbon regulatory baseline and monitoring would be a critical step towards driving soil understanding and appreciation throughout land management. Regular, consistent soil testing is the critical gateway to understanding soil's role and functions. It generates a positive feedback mechanism whereby farmers see that their soils are changing and that their practices are having an effect – motivating them to make continued improvements.

It would also send a clear message about the importance of soil carbon as the critical indicator of soil health – for productivity benefits as well as public goods - biodiversity, climate change, and water storage and filtration.

Of the three GAECs, the one that has proven the most fit for purpose – and therefore most applicable to be transferred into a new baseline in its current state is GAEC 5 which requires limiting erosion through land management reflecting site specific conditions. The rule works because it is built around a specific outcome – and so should be applicable for high-risk crops including maize and root crops grown on unsuitable sites demonstrating poor practice.

The challenge with GAEC 5 is limited understanding of the rule's interpretation – another area where improved education and guidance could make an important difference.

4. *What is your view about compliance with the rules among land managers?*

As above, the data we have is patchy at best. According to Unchecked, serious pollution incidents in the UK from the farming, water and waste sectors are a weekly occurrence. Informal feedback from the EA is that the number of FRfW breaches recorded has massively increased. This may partially be down to better reporting or recording, however it is still most unsatisfactory.

Low compliance is not only caused by low awareness. Farmer behaviours are impacted by a variety of production pressures (supply chain demands, bank lending etc.) and they must balance these very real pressures against the (statistically) highly unlikely scenario that they will be inspected and fined. The reality may be that it is cheaper to pollute than to comply with the rules.

When it comes to achieving compliance, there needs to be acknowledgement that with changing weather patterns, farming that does not cause soil degradation cannot be prescribed by the calendar or by blanket approaches. A local and flexible approach is needed in order to deliver for the environment and for farming business. We urge Defra to consider the role that the supply chain could play in improving compliance with the rules and the environmental cost of not addressing this issue head on.

5. *Are there any gaps in the rules that are causing an impact on water quality?*

As is implicit in the title, the 8 FRfW rules are for water and were designed to achieve national compliance with the WFD. Their impact on soil has always been a secondary consideration – essentially making soil health a by-product of water health. We would like to see integration of baseline rules cover not only water but soil and air quality.

As a result, the gaps are not so much in the Farming Rules but in the overarching legislative framework which fails to give soil the policy focus it needs – or to adequately consider and understand soil in the round and regulate for all soil services and functions. N.b., some damage caused to soil (e.g. wind erosion) is not caused by water, while some damage caused by soil (carbon, biodiversity loss) would not be measurable directly through water metrics.

To overcome this, and to highlight soil's importance, we call for either soil to be referred to more explicitly in these baseline rules – which might be re-branded as an umbrella set of harmonised baselines standards for water, soil and air (covering nutrients, soil health, carbon, ammonia, etc.).

Alternatively we would call for a soil-specific statutory instrument with the aim to protect soil multifunctionality and the diverse public goods and services provided by soils - in particular those related to carbon storage and sequestration (achieving net zero carbon as well as climate change mitigation) water storage, soil fertility, biodiversity etc.

To this end, it is no longer enough to think in terms of preventing existing degradation. What is needed is a more proactive, positive approach which aims to improve our soils and specifically their carbon content, through regenerative practices.

Finally, we would draw your attention to the 2016 report on soil health by Parliament's Environmental Audit Committee: *There is reason to doubt that the current cross-compliance regime is achieving its goal of preventing soil damage. In 2015 only two breaches of the soil rules were detected. Moreover, the Good Agricultural and Environmental Condition standards are not ambitious enough to support Defra's goal that all soils are managed sustainably by 2030, since they focus only on preventing damaging practices and not on restoration or improvement of soil quality.*

The 8 FR4W were introduced after this report, however as we have indicated above, when it comes to soil protection measures, nothing has changed. A new regulatory approach to soil is an opportunity to finally address this, working hand in hand with other policy mechanisms aiming to achieve farmer behaviour change and specifically Environmental Land Management (E.L.M.). Sustainability is no longer enough because it is a prolongation of the degradation we have. What is needed is to build back into nature with regenerative

practices. Attitudes need to become more proactive so that soil quality, water quality and business development don't stand still through tick-box exercises.

6. *What are your views on the current enforcement regime?*

The challenge with the 8 FRfW is not so much with the rules themselves, but with their enforcement and clarity about penalties. Indeed, there is little point in reviewing/expanding the rules without also evaluating the investment needed to drive compliance. Recent cuts to Environment Agency budgets – and with them the allocation towards inspections - goes back much further than 2018 and is an issue for all regulations, not just the 8 FRfW.

- Enforcement action by the EA on breaches remains negligible with 7 warning letters in 2018/19 and 3 warning letters + 5 "advice and guidance letters" in 2019/20. No notices have been served relating to any breach in either year.
- From 2010/11 to 2016/17 - "Total Environment Agency prosecutions of businesses fell by 80%**".** Unchecked UK 2019.
- It used to be the case that on average each farm would be inspected once each 100 years (pers com), but recent cuts to EA budgets have increased this to 263 years. Salmon & Trout Conservation (S&TC) in ENDS 2020.
- UK's enforcement gap - regulatory budgets in the UK have fallen by 41% in real terms over the last decade. Unchecked UK 2019.
- From 2010/11 to 2016/17, the Environment Agency's environmental protection budget fell by 62%. Environment Agency staff fell by 22%. Unchecked UK 2019.
- "The number of water pollution samples taken by the Environment Agency fell by 28%." Unchecked UK 2019.

We would make two observations here: 1) Neither fines for non-compliance nor resourcing of enforcement are proportionate to the harm caused by non-compliance. 2) Investment in environmental enforcement generally does not reflect the government's ambition to leave the environment in a better state than that in which they found it.

A 2018 report by the Rivers Trust, WWF and the Angling Trust estimated that the cost of enforcing existing legislation for agriculture would be as little as £6m a year.

To evaluate the impact of enforcement, it is also necessary to consider where we are in the process. According to the November 2017 Policy paper *'Farming rules for water – getting full value from fertilisers and soil'*: The farming rules for water *will be introduced through an advice-led approach*. In other words, the Environment Agency began by advising farmers on how to comply with the new regulations, and we suspect has only recently adopted an approach incorporating penalties.

This raises the importance of clear demarcation between enforcement and advice. The regulatory and enforcement agencies (EA/NE) should only advise about the rules and how to comply with them, while farming advice should be independent – of both Defra and overt private sector (agri-business) influences.

7. *Any further points – or indeed identification of any questions Defra is not asking but ought to be.*

Through E.L.M., farmers will receive public money for the delivery of public goods and neither the Treasury nor the public will accept payments going to farmers who are in breach of environmental regulations – or for public funds paying for measures that are required by law. The new regulatory system should provide a clear demarcation of what can/can't be incentivized – using the polluter pays principle as a starting point.

However, awareness and enforcement of existing regulations are currently very low and an overly punitive model will dis-incentivise participation in E.L.M. As a result, there is room for flexibility in how some of these rules – especially any new ones – are introduced. In some instances, E.L.M. should be used as a transitional vehicle to advise and drive awareness/understanding of, and later compliance with these rules. Where

necessary (e.g. on soil carbon monitoring, sequestration practices) financial incentives might be needed to kickstart behaviour change that can then form part of the regulatory baseline.

When it comes to soil health, the balance between regulation, financial incentivisation and education/advice is critical. A good example is the River Axe, where a combination of financial incentives alongside the threat of EA enforcement appears to have been very successful.

Any new regulatory approach should be created in a way that explicitly recognises the role and responsibility of the food supply industry - by enforcing regulations through their supply chains and basic standards, such as Red Tractor, as well as ensuring they don't accidentally encourage non-compliance through contractual arrangements.

A regulatory baseline will also help farmers access private funding sources including trusted farm assurance, nutrient trading schemes, collaborations with water companies and local development authorities and via protocols for carbon off-setting – schemes which will need to see legal compliance as a condition before investors will commit.