

Response ID ANON-6JAU-FMQM-7

Submitted to **Environmental Land Management: policy discussion**

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Introduction

1 Do you want your responses to be confidential?

No

if you answered yes to this question please give your reason :

2 What is your name?

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4 Where are you located?

Please select:

Remote

5 Who are you?

Please select:

Other

Please specify:

Association of Drainage Authorities

consultation questions

6 Do you have any comments on the design principles on page 14? Are they the right ones? Are there any missing?

Please leave your comments below:

Association of Drainage Authorities (ADA)

Sofi Lloyd (Sofi.lloyd@ada.org.uk)

1. Introduction

All life depends on water. Wildlife, habitats, farming, people, industry, our way of life as we know it depends upon water. Plentiful water underpins life while extremes of surplus or deficit can destroy it.

It is encouraging to see that the 25 Year Environment Plan recognises water-level management as a vital priority. However, the theme does not appear to be continued as strongly through other key environmental strategies and policies which claim to align to it. For example, Defra's Farming for the Future Policy update released in February 2020 mentions water only 3 times which doesn't seem to reflect the cruciality of water resource management to farming. Those promoting the newly published FCERM (Flood and Coastal Erosion Risk Management) Strategy claim that ELM is critical to its success. Yet within the Defra ELM Policy Discussion Document the FCERM strategy is not mentioned at all. Recently published Water Resource Management plans, which are to become statutory through the enactment of the Environment Bill later in 2020, cite future ELM as key to delivering improved water resource management but they are not mentioned within the ELM policy documents. Greater emphasis on water level and resource management throughout all Government's farming and environmental policy is needed, given the importance of water to both farming and the environment, and all need to be better integrated and aligned. Certainly ELMS needs to be fully integrated with the National FCERM Strategy if the goals of both are to be achieved.

Supporting improved water-level management through ELM can be considered to be the epitome of "public goods for public money". ELM appears to be the ideal tool to empower farmers and landowners to deliver this public benefit for public money. Iconic of this concept is a landowner allowing some of his land to be temporarily inundated in times of high flow to lessen the risk of flooding downstream. Water-level management must be one of the few focus areas which can provide benefits against all 6 of the 25-year environment plan goals:

- Clean air.
- Clean and plentiful water.
- Thriving plants and wildlife.
- A reduced risk of harm from environmental hazards such as flooding and drought.
- Using resources from nature more sustainably and efficiently.
- Enhanced beauty, heritage and engagement with the natural environment.

The extremes of climate change and a rising population will force everyone to manage water resources much more efficiently in the very near future. RMAs such as IDBs and the EA control the conveyance of large volumes of freshwater and farmers have an increasing need to manage the highs and lows of freshwater availability driven by climate change. It seems inevitable that both these industries will necessarily be working much more closely together in the future.

Our environment is a complex and indissociable mix of natural, social and economic elements. What is clear is that any policy or strategy linked to farming and the environment should include water level management as its primary focus if we are to become resilient to climate change and achieve the environmental improvements desired.

2. Specific consultation responses

Introduction

These design principles are encouraging but strength and specificity is needed. Some principles seem to lack confidence and ambition and some are ambiguous or conceptual. For each element, an example of how it could be improved is given along with some reasoning:

Principle "a":

Focus on achieving environmental outcomes, helping to deliver our 25 Year Environment Plan and net zero target. In doing so, it will help farmers, foresters and other land managers optimise the potential of their land to deliver public goods, as part of a thriving food or other land-based business;

Better:

Each element of the scheme should clearly refer to a specific target set out in current key environmental policies, principally the 25 year Environment Plan, but also others including the FCERM strategy. It should specify which public benefit/s each element is delivering i.e. flood alleviation, carbon sequestration, saltmarsh habitat creation.

Comments

The principle could be strengthened and distilled as suggested. Stating that "focus" be placed on the 25 year environment plan and net zero targets is slightly ambiguous. It would be more accurate to indicate that the scheme will be designed to deliver public goods associated with a range of key environmental policies and strategies for public money.

The policies and strategies which are targeted by ELMS should be defined to ensure that efforts remain focussed on delivering against environmental priorities, and to ensure that related policies and strategies are aligned.

Given the risks posed by climate change, one such strategy should be the National FCERM Strategy. It has been stated by the Environment Agency that "ELMS is absolutely key to the success of the FCERM strategy".

Principle "b"

Ensure national and local environmental priorities are supported and balanced effectively

Comments

Agreed and we set out how this can be done in more detail later in ADA's response.

Principle "c":

Ensure that the scheme and its underpinning systems and processes work effectively and represent maximum value for money to the taxpayer;

Comments

This element should be a given but its inclusion is understandable following previous system and process issues. The pilot period should help to minimize these issues.

Principle "d"

Ensure that ELM includes actions that most farmers, foresters and other land managers could deliver and encourage delivery of outcomes at all spatial scales through collaboration as well as individual participation

Comments

It should be made clear that while individual farm-scale involvement is valuable and will be supported, greater environmental gains are often the result of partnership working on a larger scale, such as within a river catchment or sub-catchment. As such more focus and effort must be made to encourage and increase confidence to participate in these more ambitious, landscape-scale partnership projects through the availability of local expert advice and guidance. We expand this point later in our response.

Principle "e"

Enable farmers, foresters and other land managers to have greater flexibility over how they deliver environmental outcomes;

Comments

Environmental stewardship schemes have previously been criticised for not allowing the consideration of local factors and many potentially valuable ELM contributions were prevented due to the rigid application of the rules. We accept that allowing a more locally flexible approach to deliver specific outcomes will be beneficial and encourage greater uptake of ELM, but some criteria do still need to be in place.

Principle "f"

Ensure minimal complexity and administrative burden for participants and administrators, considering lessons learned from similar past initiatives;

Comments

This is critical, we agree. The introduction of larger and more complex projects may require a participant to liaise with a number of "authorities" to ensure that their actions are compliant and suitable. This is particularly the case with flood alleviation measures and projects which may require engagement with local IDBs or other RMAs. Ensuring the Tier 1 elements are administered efficiently will hopefully give room and enthusiasm for participation in the more complex projects expected under tier 2 and 3.

Principle "g"

Seek to harness new technology and digital solutions where they are shown to add value and improve the scheme design and operation

Comments

We support this. It must not however discourage participants who are less confident in using more technological approaches and must be based on solid and plentiful scientific research and well trialled.

Environmental modelling such as that used to define the contribution of a range of factors to short and long-term water levels including flood events in a specified location can be valuable. This type of technology for example can identify where riparian planting or rural sustainable drainage systems can help to slow the flow, intercept run-off and reduce sediment loads, and reduce flood risk further downstream. While this technology may not be new, it could be new and valuable to the support of the ELMS scheme. Many RMAs such as the internal drainage boards, local authorities and the Environment Agency could assist by partnering it with local expertise.

Principle "h"

Seek to continuously improve all elements of the scheme and its administration, through monitoring, evaluating, learning and innovating, while providing sufficient certainty and clarity to applicants;

Better:

Develop a robust process which will seek to regularly review scheme elements and processes to drive structured, well planned and communicated improvements in a manageable and efficient way.

Comments

This needs to be process driven and the design principle needs to allude to that fact.

Principle "I"

Consider re-using / improving existing systems and data before building new.

Better:

Re-use or improve existing systems which have proved to be successful to maximise cost and time benefits but also seek to harness new technology and digital solutions where they are shown to add value and improve the scheme design and operation

Comments

May be better incorporated into principle "g" as above.

In addition

In addition to the above design principles we recommend that the below is added:

A design principle for each element within ELMS should include the definition of success criteria and how and when it will be reviewed against them.

7 Do you think the ELM scheme as currently proposed will deliver each of the objectives on page 8?

Please leave your comments below:

Introduction

Our initial response is to say no, not entirely. However, our principle concern is that the strategic objectives are not sufficiently explicit or ambitious rather than the design of the scheme being at fault. These objectives could be strengthened and could suggest more commitment and ambition. Whilst the policy document makes clear that working on a larger scale, with partners and over a longer term is needed to achieve the ambitious goals set out in the 25 year environment plan, this is not reflected in the strategic objectives.

Strategic objective 1:

To secure a range of positive environmental benefits, prioritizing between environmental outcomes where necessary

Better:

- 1) To secure a range of positive, long-term environmental benefits
- 2) To encourage multifunctional approaches to maximise the amount of public good which can be delivered with public monies invested.

Comments

A range of environmental benefits can be achieved through using multifunctional approaches and solutions. This could avoid the need to prioritise or favour one singular outcome over another.

Example

A landowner who wishes to increase the height of their sea defenses is likely to deliver an environmental benefit in terms of reduced risk from sea flooding but other environmental benefits may be limited with this approach. The removal of a short section of flood defence may encourage the establishment of a small area of intertidal habitat but could impact on flood risk and the viability of the surrounding land for agriculture and loss of other important habitats. But the creation of a new, lower, but broader and more resilient sea defence combined with efforts to replenish, enhance or create new saltmarsh habitat in the inter-tidal area is likely

to deliver a much wider range of environmental benefits such as carbon sequestration, habitat creation and support of vulnerable brackish species, alongside and reduced risk from flooding and more. One such example, supported by East Suffolk IDB, was at Waldringfield .

Example

A landowner could be rewarded for establishing pollen and nectar margin along a watercourse which has obvious environmental benefits including LERAPS compliance. However, ELMs could reward the landowner to set aside a permanent multifunctional strip along all their riparian field margins adjacent to a watercourses. The strip could be used by RMAs to carry out river-maintenance works, can be can be sewn with a diverse seed mix which supports pollinators and other wildlife as well as helping to capture sediment from run-off, reducing phosphorous pollution and reducing the build-up of sediment in waterways which can increase flood risk.

It is imperative that multi-functionality should be centre of the ELM strategic objectives if public benefits are to be maximised from the investment of public money.

Strategic objective 2:

To help tackle some of the environmental challenges associated with agriculture, focusing on how to address these in the shorter term

Better:

To help tackle the environmental challenges associated with agriculture in an integrated way to deliver a range of sustainable solutions together, for environmental benefit now and in the long-term

Comments

The objective should aim to tackle as many challenges as possible, if not all, the environmental challenges associated with agriculture in an integrated way. To focus only on some aspects would be a backwards step, moving away from the integrated and multifunctional approaches currently being promoted and adopted by much of the farming community.

The types of activities suggested, particularly under tier 2 and 3, will require a longer-term focus, with effective planning and maintenance. This is particularly true for those activities that relate to flood risk and water-level management, which will require a long term commitment from land-managers in most cases. Objectives should be looking beyond tackling only short-term challenges in order to achieve the outcomes set out in related policies such as the 25 Year Environment Plan and National FCERM Strategy.

Public monies should be used as an investment with the aim of underpinning long-term sustainable environmental returns, and not unsustainable short-term improvements. Often environmental damage that we see today is the cumulative effect of activity taking place over many decades and will not be reversed by activities delivered on a short-term basis. In particular, resilience and adaption to the extremes of climate change can only be achieved if we look further ahead and plan for future climate scenarios.

ELM measures, particularly relating to water-level management should be carefully planned and should aim to maximise their longevity. For example, through the use of conservation covenants. Measures should be designed to withstand the challenges we expect from climate change, not just those experienced recently. This longer-view approach is more in line with the well promoted policy of landscape-scale approaches to managing water resources and flooding.

Example

Considering the sedimentation of watercourses, and the increased flood risk that this can pose, is one area where longer term land management solutions can unlock more efficient and sustainable solutions and bring wider benefits to land managers, communities, and the environment.

Historically, the buildup of sediment in watercourses has been tackled by dredging. Lack of dredging has recently been mooted as a contributory cause of some of the devastating floods we have seen in 2019 and 2020. Regular removal of sediment from watercourses can help to make more room for more water to be conveyed away, in times of high flow and create capacity to speed the recovery of flooded land. Some watercourses are in urgent need of dredging to return to their historic profiles and prevent further devastating loss to communities from future flooding. However, it is recognised that dredging can prove costly in terms of money, and needs to be undertaken with care to mitigate its environmental impacts, for instance where dredging arising may be contaminated by current or historic industrial processes. There are some dredging methods that are understood to be less environmentally damaging, but even these approaches do not resolve the source of the problem in agricultural run-off and wider water quality challenges that this brings, such as contributing to phosphate pollution. We need to focus greater attention through ELMS in approaches that prevent the loss of the soil from fields, which ultimately is a resource we need for the future.

An integrated and long-term sustained approach is needed to address the causes of sedimentation from a flood risk management, water quality improvement, food security, and environmental perspective. This includes support through the ELMS for the landscape-scale establishment of permanent riparian margins, improvements to soil quality through the regular addition of organic matter, the use of over-wintered cover-crops to stabilise soil particles, and the support for adopting reduced tillage cultivation techniques. These approaches are often a result of significant change to individual farming strategies and practical capabilities in terms of farming machinery. These changes cannot happen overnight but the move towards them should be encouraged, supported and sustained through the ELM scheme.

It is disappointing and surprising to see that sustainability does not feature within the strategic objectives, particularly as the future of farming and related policies firmly depends on sustainable approaches.

Long-term, sustainable, positive environmental benefit can be secured through the ELM scheme and this must be clearly set out in the strategy ELM strategy if the goals set out in the 25 year environment plan and other environmental policies such as the FCERM strategy are to be achieved.

8 What is the best way to encourage participation in ELM? What are the key barriers to participation, and how do we tackle them?

Please leave your comments below:

Introduction

In terms of encouraging uptake of particularly water-level management measures, local expertise in terms of advice and guidance provision and fair payment for the public good provided are key.

Advice and Guidance

Example

A farmer may wish to control floodwaters on his land to avoid them inundating his most productive areas and to provide some temporary flood alleviation for his local community but may not understand the value of what he/she has to offer, have the knowledge to do so or know where to seek guidance.

These more complex elements of ELM, such as flood alleviation, must be designed with a direct source of expert advice and guidance made available. A barrier to the uptake of particularly more complex elements will be if a potential participant does not know where to seek assistance, or has to make a number of unsuccessful calls seeking assistance. A one-stop, knowledgeable A&G source will support greater uptake of more complex measures. With a little local advice and guidance, sought quickly and simply, a farmer's confidence to be more ambitious with their plans could be supported, and what was an individual field-scale plan could become a key component of a catchment-scale partnership, providing benefit to a much wider community. It is vital the sources of advice and guidance are current and clear and where necessary have local relevance and knowledge.

Catchment Sensitive Farming (CSF) delivered as a partnership between Government agencies and farm advisers working with farmers to improve water and air quality in high priority areas has been cited as a positive approach which offers farmers free training, advice and support for targeted grant applications.

Measures which provide water-level management resilience in the face of climate change are a relatively new concept to many landowners. But approaches such as natural flood management (NFM) and rural sustainable drainage systems could be integrated into something akin to CSF improving the availability of knowledge and practical advice to encourage participation.

Local Knowledge

Local factors are likely to be key in defining the correct action to take to achieve the desired outcomes relating to water-level management, therefore local expertise is likely to be needed and respected. RMA's such as internal drainage boards for example have a local presence, are governed by board members who include elected local land occupiers, and as local public bodies have the expertise and often the practical capability to assist in the development and installation of local water-level management improvements on and between farms. They would be ideally placed therefore to provide the advice and guidance on water-level management measures supported by the ELM scheme. The proposed devolution of responsibility for the identification and support of some local priorities is therefore welcomed and most suitable for water-level management related activities.

Think long-term

There is already a good appetite to "get stuck in" amongst the farming and land management community. There is a keenness to not only protect the viability of their business against the water supply extremes we are expecting from climate change, but also to protect their local communities from the same. If the measures they employ are fairly rewarded and supported, both in the initial establishment, and on-going long-term maintenance, then we expect the uptake could be encouraging. The key is long-term measures and long-term support. Farmers and land managers may not be so willing to expend their time and effort into establishing measures with no longevity and no long-term financial reward. Transparency of what payments will be received, when, and for what will help.

Payments

In terms of water-level management, there are no cheap solutions or shortcuts to be made if homes, businesses, the environment and farming livelihoods are to become more resilient to weather extremes we expect from climate change. Landowners have long been providing flood alleviation to their local areas at their own expense when surface waters or rivers flood their land uncontrollably. Only recently has the Farming Recovery Fund been made available to provide farming applicants with a contribution towards the cost of recovering land for future agricultural use following a flood. Still they are not compensated for the income they have lost due to the destruction of their crop. A more proactive and fair recognition and management of these services and activities is required.

There is a need to offer a range of payments types for more complex schemes, including some water-level management schemes, and the transparency and fairness of these payments is vital to attract uptake.

Example

The development of more "washlands" such as those situated near to Lincoln that help to defend the City from flooding from the River Witham should be encouraged. These are large areas of agricultural land which, under a set of specific triggers can be temporarily inundated to alleviate flood risk further downstream in vulnerable areas.

Firstly, there is likely to be a need to seek advice as to where is best to site such washlands in the context of the catchment as a whole, integrating their planning with local RMAs. Access to local expertise here will be key. There will be the need to cover the cost of establishing or enhancing earth bunds around the perimeter of the area which is to take the floodwaters, to prevent uncontrolled flow into undesired areas. Secondly funding would need to cover the cost of development of the physical means of allowing water into the washlands, through the installation of a spillway for example, and the means by which the water can be evacuated, such as a sluice or pumped outfall back into the watercourse. Again, local expertise is expected to be needed here to identify the most suitable structures and where and how to install them. Over the long-term, funds would need to be provided to support the ongoing maintenance of these features to operable conditions. Such assets should be operated by a local RMA, such as an IDB. Finally, a means to compensate the land-owner periodically in terms of his commercial losses due to inundation are needed. This should include compensation of their income lost through crop losses but also the cover the costs of returning the land back to agricultural use. Again there is a need to look at a range of options to offset the risk, either as annualised payments, or when used, or a combination of the two.

If the cost incurred and income forgone funding approaches could be used to clearly identify the funding a landowner would receive to install water-level management features of this type, then uptake could be encouraging.

Case studies

Finally, most farmers and land-owners are encouraged into action by others who have successfully employed certain techniques to achieve specific outcomes. As such, a central ELM case-study library should be developed where farmers and the wider community can access such case-studies. Case studies should include what went well and what didn't go so well through the life of the project and include specific factors which were relevant to its success such as soil types or

geographical location. This will also provide the information needed to promote the successes of individual projects, the success of particular techniques and of ELM as a whole. It could become a data resource for reviewing ELM measures against a range of success criteria and to support scientific research to develop the field further.

9 For each tier we have given a broad indication of what types of activities could be paid for. Are we focussing on the right types of activity in each tier?

Please leave your comments below:

Introduction

We are broadly in agreement with most of the suggested activities under all tiers. Suggested changes are as follows:

Tier 1

We would recommend that hedgerow planting and maintenance could take place under tier 1.

Soil Management

We would strongly recommend that managing sediment on a field scale to prevent it reaching watercourses and affecting water quality should become a mandatory farm standard related to good basic soil management under tier one, not tier 2 as suggested. Basic soil management practices should be a core theme of the mandatory standards and should include mandatory riparian margins, soil organic matter management, compaction prevention and alleviation, contour ploughing and over-wintered cover to reduce run-off and sedimentation of adjacent watercourses and to improve infiltration. Good soil management techniques can be considered truly multifunctional as the benefits are also recognised in improved air quality, water quality, carbon sequestration and biodiversity.

Invasive non-native species

We also recommend that basic good practice for invasive species prevention and control should be mandatory and fall under tier 1. Perhaps some of the more complex approaches to controlling invasive species once they are established would be more appropriate to 2, but basic control, biosecurity, and management principles should be mandatory and fall under tier 1.

Water storage

There are two types of water storage approaches which ELM should consider and support; planned and unplanned water storage. Planned water storage would be a deliberate accumulation of water into a specified area, over a longer timeframe for example weeks or months, for use when demand is expected to be greater than supply. Unplanned water storage is as a result of the urgent need to divert diffuse overland flow or high flows within watercourses into pre-defined areas in a controlled manner, to alleviate flooding in more vulnerable areas downstream. The latter needs to be planned to be released as soon as the risk of flooding has passed.

Example (planned):

Euston Estates in Suffolk have 1,200 acres in vegetable production which rely on 17-20 irrigators. The area receives relatively low rainfall onto sandy soils which are characteristic of the Brecklands. The decision was taken to build 2 on-farm reservoirs to secure their future business approach. The first was built for a cost of £320,000. Approximately £120,000 of the cost was attributable to mitigation measures for Great Crested Newts. Another £80,000 was spent on managing landscape heritage features directly within the reservoir boundaries. This suggests that a similar project could be completed for quite a bit less where these constraints were not present or for smaller scale production. The overall project was part-funded at 35% of the cost by the RDPE programme run by Defra. One reservoir acts as a slave to the other with all irrigation main controllers and pumps located at the larger of the 2. Abstraction licences allow the farm to take water at times of high flow into both reservoirs. This offers a potential flood risk reduction option to the village of Thetford and further downstream and west into the lower fens. The farm also holds a year-round groundwater abstraction licence.

If new on-farm water-storage could be designed to be multi-functional from the outset i.e. providing a pre-determined capacity for flood attenuation with remaining capacity for agricultural use, alongside environmental benefits then their construction could be an attractive project to fund under ELMS. But the complexity and costs involved in such schemes is clearly more suited to tier two, not tier one.

Even smaller-scale planned water storage such as within field drains and ditches will need to be designed with the impacts to adjoining watercourses considered and so are likely to require the need for some local advice and guidance. It is for these reasons that planned water-storage may not be suitable for tier 1 and is likely to be more appropriate for tier 2. Only small-scale water storage solutions such as rainwater harvesting may be appropriate for tier 1.

Example (unplanned):

2007 saw over 11,000 properties, business and key transport routes affected by devastating flooding across several regions in and around Hull due to a combination of surface water run-off and lack of capacity in drainage systems. Following the floods both East Riding of Yorkshire Council and Hull City Council carried out complex surface water modelling. The concept for storage lagoons to the west of the city was tested with a pilot project completed in 2012/13, the Raywell Valley Flood Attenuation Scheme.

Building on the success of the pilot scheme, the proposed Cottingham and Orchard Park Flood Alleviation Scheme (COPFAS) was developed. The multi-million pound COPFAS project was delivered by East Riding of Yorkshire Council, in partnership with Hull City Council and the Environment Agency which benefitted from a contribution of £5m from the Government's Local Growth Fund, secured by the Humber LEP and part of the Government's commitment to the Northern Powerhouse.

The COPFAS scheme consists of eight separate lagoons for rainwater storage across the affected regions. Together they have the capacity to hold back 470,000 cubic metres of flood water. All of the lagoons in this scheme remain dry only to be filled during severe wet weather events. Many of the lagoons will remain as farmland, and will contain either arable crops or grazing land and one lagoon includes a landscaped area including a fishing pond, planted nature area and recreational land for the community.

For unplanned water-storage, solutions may be complex, require multiple land-owner participation and are likely to require the need for local and technical expertise so again these ELM activities are more suited to tier two and three.

Tier 2

Natural Flood Management (NFM)

Caution should be applied in encouraging the widespread application of some aspects of NFM, particularly leaky dams which are known to slow in-stream flow and riparian planting which can be beneficial to slow overland flow. Both measures can provide flood alleviation further downstream as well as other environmental benefits such as carbon sequestration and habitat provision to support biodiversity and should be encouraged in the right areas. However, clear criteria, advice and guidance should be provided as to the suitable locations for these and their maintenance. Where there is a risk for example that debris from leaky dams could dislodge and cause an obstruction at structures downstream, such as sluices, bridges, culverts, or pumping stations, then these features should not be supported. Riparian planting is another feature which is only environmentally beneficial if located in very specific areas. These areas could be identified within Local Nature Recovery Strategies and only be supported through ELM if so defined. Planting of trees in areas where rivers and drainage channels are embanked could be catastrophic both environmentally and economically. Tree roots could destabilise earth banks and debris could restrict the flow, significantly increasing flood risk. Woodland creation in the wrong area could also outcompete less competitive and rarer early successional habitats such as fen. It is for the above reasons that clear and locally derived advice and guidance to ensure these measures are employed appropriately must be provided.

Farm-scale or collaborative landscape scale

There are many examples of activities, particularly the collaboration of farmers to create a large-area of connected habitat which could fall within tier 2 or tier 3 currently and it is unclear how these types of activity will be delineated between the tiers. Peatland restoration activities could be established on a farm-scale or landscape scale, and would be valuable either way as would similar saltmarsh creation activities and should be encouraged at any scale. We do agree that much of the activities which are proposed under tier 2 will require specialist and/or local advice and guidance if the benefits are to be maximised. However, we suggest that tier 2 focus on maximising more complex environmental benefits on a farm scale through the provision of advice and guidance. Individual applications could still be considered against or encouraged to align their contribution to other neighboring farm-scale provisions, in terms of how they enhance and complement them with the aim of delivering more connectivity and landscape-scale solutions. But targets may be more simply administered and achieved if applications are restricted to farm-scale in tier 2.

Tier 3

We suggest that collaborative working would usually involve the development of more complex landscape-scale applications. A collaboration co-ordinator and provision of specialist advice and guidance is likely to be needed and long-term land use changes are likely to be needed to achieve the desired outcomes. It is for this reason that we suggest such collaboration and landscape-scale elements of ELM fall under tier 3.

Relationship between Tiers

It is yet unclear whether non-farming land-owners such as IDBs, local wildlife charities etc. will have access to ELM funding and this requires urgent definition. We explore this subject in more detail later on in our response. Assuming that non-agricultural land owners and managers will have access to ELM funding, we suggest that they will be able to participate in tiers 2 and 3 without also achieving the mandatory standards we propose under tier one. This is mainly due to the fact that they do not always have all the means necessary to meet the standards if they are not engaging in agricultural activity. However they should be encouraged to participate in the non-mandatory elements of tier one as they have much to offer in terms of landscape-scale habitat connectivity. For farmers, participation in tier 1 should be the qualification for entry into the other 2 tiers to encourage the formation of an underpinning wide-scale, simple and valuable framework of environmental support and connectivity.

What is also unclear is how will funding be allocated across the tiers and how will it be ring-fenced.

Summary

We look forward to greater delineation of the tiers and to understand how they will work together and to minimise overlap.

10 Delivering environmental outcomes across multiple land holdings will in some cases be critical. For example, for establishing wildlife corridors or improving water quality in a catchment. What support do land managers need to work together within ELM, especially in tiers 2 and 3?

Please leave your comments below:

Introduction:

The term "Land Managers" is used in several places within the document to differentiate from "farmers". This term needs some urgent definition if those it refers to are to prepare effectively. There are several organisations and bodies who own and manage land including wildlife charities, parish councils, religious organisations, IDBs and the Environment Agency. The latter two, under permissive powers, manage a vast nationwide network of wildlife corridors in the form of watercourses and adjacent land and actively support habitats and species through their Biodiversity Action Plans. There are huge opportunities under ELM for these areas to be put to better use to achieve the environmental improvements needed and set out in the 25 year environment plan. For example, funded enhancements such as floristically enhanced riparian margins to support pollinators will make fantastic wildlife corridors through the farmed environment and could encourage beneficial crop pest predators to cropped areas. The will of RMA's such as IDBs to participate and contribute is most definitely there and has been from some time, but opportunity to has been limited. We suggest that all these land and watercourse managers should be able to access ELM funding to work together with farmers, to move from a landscape which is a mosaic of their management to one of similitude, connectivity and scale as environmental policy aspires to.

Definition of need and solution

Firstly, local landscape-scale environmental strategies need to be clearly defined by a range of local environmental stakeholders. The need and benefits of developing a collaborative approach to solve an environmental challenge need to be made clear. We suggest later in in our response that the Local Nature Recovery Strategies would be the best place to develop and maintain this information.

Accessibility

The overarching local strategy (LNRS) must be accessible in terms of being able to physically access the document and any related information and detail who

can be contacted to find out more. This is likely to need to be on-line.

The strategy must also be accessible in terms of a range of landowners and farmers being able to contribute to collaborative, complex or large-scale projects. There are many different sizes and types of farmers and landowners and often the smaller businesses and organisations lack confidence that their smaller-scale contributions are worthwhile when they compare themselves to larger more affluent estates. Their participation should be actively encouraged and supported by highlighting how valuable their small-scale contribution could be. Case studies will be key here in order to demonstrate that great contributions can be made by small-scale businesses and land-owner to wider-scale projects.

Example:

The Ely Group of Internal Drainage Boards, working alongside Littleport-based rural development charity, Cambridgeshire ACRE, has been successful in accessing grant funding to support its work to enhance the aquatic environment in the Cambridgeshire Fens.

The National Lottery Heritage Fund has awarded £729,000 for the organisation's New Life on the Old West project. It aims to increase connectivity and resilience in the Fens by enhancing the vital ecological corridor alongside the Old West River between two core wetland reserves, National Trust's Wicken Fen and RSPB's Ouse Fen.

The project will undertake numerous sustainable habitat improvements on the ditch network, arable farmland, and community green spaces to achieve multiple 'stepping stones' and 'wildlife corridors' in the landscape. The enhancements include 3.6 km of berm creation ('stepped drains') which help to increase water storage opportunities within the drains, boost bank stability and create marginal habitat that is typically the most biodiverse part of any waterbody. Species which are expected to benefit include stonewort, greater water parsnip, water violet, frogbit, greater bladderwort, flowering rush, common meadow rue, aquatic water beetles, the emperor dragonfly, the European eel, and water voles.

The project will involve a number of other partner organisations within the project area, including technical experts, community organisations, landowners, schools, and parish councils. They will come together to discover, experience, and connect with their unique fenland natural heritage, increasing their knowledge of how best to maintain the assets in their care and safeguard the area's vulnerable biodiversity.

Advice and guidance

Access to local expertise advice and guidance is key in terms of land-scale scale, collaborative approaches to water-level management. Local RMA's such as IDBs are ideally and uniquely placed to offer this. IDBs have existing relationships with individual landowners and understand both their individual needs and those of the wider environment and communities. Landowners working together will understand conceptually what is required across their joint catchment but they will require expertise and physical support to turn concepts into practical application. IDBs have the practical expertise and capabilities, such as an understanding of local hydrology, to help farmers to turn their concepts for improved water-level management into real infrastructure and process.

11 While contributing to national environmental targets (such as climate change mitigation) is important, ELM should also help to deliver local environmental priorities, such as in relation to flooding or public access. How should local priorities be determined?

Please leave your comments below:

Devolution

We would strongly agree that, particularly in terms of water-level management activities under ELM, there will be a need to devolve responsibility for project prioritization and advice and guidance provision to local levels. Conflicts of interest need to be considered so that those providing the advice and guidance to other landowners are not competing for the same pot of money.

Local Nature Strategies

It is understood that the development of Local Nature Recovery Strategies (LNRS) will require a range of local stakeholders to work together in partnership to define the local environmental priorities. These priorities should include the full scope of environmental elements from net-zero targets to public access, flood resilience and adaption, water resource management and waste management alongside the more traditional habitat and species priorities. These categories should be nationally consistent and centrally defined.

There are already many individual strategies produced by local environmental stakeholders which focus on a particular area of the environment. This could mean that much of the work to define the full scope local environmental priorities within LNRS has already been done. This will make the LNRS development much more efficient and ensure that experts in each field are involved in LNRS development. These strategies include RFCC strategies and Regional Water Resource Partnership strategies such as that recently produced by Water Resources East (WRE).

This overarching LNRS should not only be able to identify areas where habitats and species could be better supported and enhanced, but areas where new habitat would be ideally created, opportunities to reduce carbon emissions such as the installation of solar panels on pumping stations to eliminate electricity usage, ideal locations for riparian planting and leaky dams, run-off attenuation features, floodplain restoration or designed spillways from embanked rivers.

Example

An example of where Water Resources East (WRE) is strengthening collaboration between sectors is the Future Fenland Adaptation Strategy. This initiative, which is based on the principles of Integrated Water Resource Management (IWRM), seeks to deliver a long-term solution to the drought, coastal inundation and flooding related risks which are posed in our fenland areas by climate change. By coordinating activity and funding in programmes which are traditionally considered to be separate, the overall level of investment which is required can be reduced, and delivery can be made more efficient and the benefits spread more widely. An illustration of the concept is given below:

<https://wre.org.uk/wp-content/uploads/2020/04/WRE-Initial-statement-of-resource-need-FINAL.pdf>

Key elements of the Future Fenland Adaptation Strategy include:

- New multi-sector reservoirs providing additional water supply resilience for water companies, farmers and the food industry.
- Downstream flood barriers or barrages to protect growth areas in the Fens, enabling key local infrastructure projects such as such as a rail connection from Wisbech to Cambridge and the dualling of the A47 to move forward.

- Open water channels to provide water storage, biodiversity, navigation and tourism, and further flood risk management benefits.
- The opportunity to collaborate to manage land and water across the Fens in a new and integrated way, seeking to secure the future of the peat landscape given its crucial role in carbon sequestration.

12 What is the best method for calculating payments rates for each tier, taking into account the need to balance delivering value for money, providing a fair payment to land managers, and maximising environmental benefit?

Please leave your comments below:

Introduction

In terms of water-level management, there are no cheap solutions or shortcuts to be made if homes, businesses and farming livelihoods are to be protected from weather extremes we expect from climate change. Landowners have long been providing flood alleviation to their local areas at their own expense when surface waters or rivers flood their land uncontrollably. Only recently has the farming flood recovery fund been made available to provide farming applicants with a contribution towards the cost of recovering land for future agricultural use following a flood. They are not compensated for the income they have lost due to the destruction of their crop. A more pro-active and fair recognition and management of these areas is required.

Tier 1

We consider that a hybrid of standard payment for achieving mandatory farm standards alongside a “menu” of further ELM activities which qualify for standard payment rates is most appropriate. Basic soil management practices should feature highly in the mandatory standards, including mandatory riparian margins, soil organic matter additions, compaction prevention and alleviation, contour ploughing and over-wintered cover to reduce run-off and sedimentation of adjacent watercourses and to improve infiltration. Soil and water resource management are inextricably linked and to allow for more complex and costly approaches to water-level management to be sustainable, a good level of basic soil management is an essential baseline. Good soil management techniques can be considered truly multifunctional as the benefits are also recognised in improved air quality, water quality, carbon sequestration and biodiversity.

Tier 2 & 3

A range of payments are likely to be necessary to attract the uptake of various water level management solutions under ELM. As we expect most activities are most suitable to tier 2 and 3, the comments below can be taken as relevant to both.

Example

The development of more “washlands” such as those situated near to Lincoln that help to defend the City from flooding from the River Witham should be encouraged. These are large areas of agricultural land which, under a set of specific triggers can be temporarily inundated to alleviate flood risk further downstream in vulnerable areas.

Firstly, there is likely to be a need to seek advice as to where is best to site such washlands in the context of the catchment as a whole, integrating their planning with local RMA's. Access to local expertise here will be key. There will be the need to cover the cost of establishing or enhancing earth bunds around the perimeter of the area which is to take the floodwaters, to prevent uncontrolled flow into undesired areas. Secondly funding would need to cover the cost of development of the physical means of allowing water into the washlands, through the installation of a spillway for example, and the means by which the water can be evacuated, such as a sluice or pumped outfall back into the watercourse. Again, local expertise is expected to be needed here to identify the most suitable structures and where and how to install them. Over the long-term, funds would need to be provided to support the ongoing maintenance of these features to operable conditions. Such assets should be operated by a local RMA, such as an IDB. Finally, a means to compensate the land-owner periodically in terms of his commercial losses due to inundation are needed. This should include compensation of their income lost through crop losses but also the cover the costs of returning the land back to agricultural use. Again there is a need to look at a range of options to offset the risk, either as annualised payments, or when used, or a combination of the two.

Scoring proposals to determine funding levels:

Funding calculations such as FDGiA funding (Flood Defense Grant in Aid) score and prioritise proposals based on a number of deliverables such as properties protected, environmental enhancement delivered and partnership funding expected. But these calculations are complex and often fail to take into account local factors and local opinion of what should be prioritised. For that reason, a combination of a national scoring framework and devolved local scrutiny against the LNRS priorities should be used. We would suggest that any payments under ELMs where private funding is available, should also receive an enhanced public payment to recognise this saving from the public purse. Proposals which aim to be more multi-functional to deliver a range of environmental benefits should attract a higher level of funding up to 100% of the cost of the outlay.

Upfront payments to increase uptake

In terms of water-level management solutions which involve an initial capital outlay, staged payments upfront towards milestone activities in order to establish infrastructure would be reasonable and would make water-level management measures more accessible to more landowners and farmers. This payment approach would be relevant to supporting the development of on-farm planned or unplanned water storage solutions, improvements to existing flood defense assets and creation of new flood defenses for example.

Habitat-related results-based payments

A more proactive approach to habitat restoration should be rewarded. This will favor the move away from payments for action, towards payments for results. Formally, some habitats established under CS or ELS schemes have been left to establish on their own with passive, hands-off management but there is a time delay in realising the benefits with this approach and often without active management, the results have been mixed. There are times when passive management is necessary or recommended such as the formation of saltmarsh. However, often to bring about benefits more quickly, more proactive approaches, where appropriate, such as re-seeding, pre-planted coir rolls or transplanting reeds into newly formed fenland areas for example should be rewarded financially through results-based payment types. This will encourage the establishment of quality habitats more quickly. We agree that a hybrid of action and results based payments may be suitable for these measures. One part should be based on action, i.e. habitat area created, and the other top-up part should reflect the quality of the habitat. Periodic review of such features by specialists could advise the appropriate payment levels for the top-up quality element up to a maximum amount against a quality range from low to excellent for example. The periodic review could also recommend improvements where needed. See also maintenance payments below.

Maintenance payments

Through plans set out in the Environment Bill, any long-term environmental enhancement such as that provided through a conservation covenant or a biodiversity net-gain site must have a responsible body allocated. Through ELMS, the maintenance of many of the environmental enhancements are likely to be within the capabilities of the land-owner or farmer. But for some interventions, a more specialised or technical responsible body may be needed. This may be the case for many of the water-level management solutions proposed under ELM. Features such as habitats or flood resilience assets may require regular specialist inspection or engineering services for repairs and maintenance. Local RMAs such as IDBs or wildlife organisations are well placed to deliver such services in the long-term at cost, representing value for money for the public investment. Specifying the body responsible for inspection and maintenance at the time of application would support an efficient payment processes, directly to the delivery party.

Payment rates.

There is sufficient financial information, available through various existing case studies held by a range of authorities and organisations such as ADA, the NFU and the EA to help develop a fair benchmark of costs associated with many of these water-level management activities in order to define suitable payment rates.

Auction

We are very interested in this approach to securing public goods for public money through ELMS. Advice, guidance and support must be made available to allow the auction process to be equally accessible for a range of farmers and landowners from small to large. We can see the opportunities of such an approach in delivering value for money. We expect this approach would be most suitable to tier 3 activities as suggested earlier.

General

We recommend that payments under tier 3 could be enhanced if the longevity of the outcomes can be secured through a conservation covenant.

13 To what extent might there be opportunities to blend public with private finance for each of the 3 tiers?

Please leave your comments below:

Tier 1:

We have proposed that a range of ELM activities, particularly around soil and water resource management, become mandatory farm standards under tier 1, for which funding will be received. Additional optional environment enhancements under tier 1 should also attract funding through ELMS. This may limit the opportunity to attract private funding but we are interested to learn of suggestions.

Tier 2:

Individual farm scale water-level management activities could be part-funded with private finance in a number of ways. For example, local flood alleviation measures could attract funding from local private stakeholders such as an individual farmer or group of farmers and land-owners, community groups and businesses where they expect to receive a direct benefit. This is much the same way as Flood Defense Grant in Aid funding works. Opportunities for private funding should be explored as part of the development of LNRS.

Tier 3:

While still attracting local private investment for the delivery of direct benefits, larger collaborative projects could also deliver indirect benefits such as carbon offsetting from peatland restoration. This could attract funding from a more diverse and widespread range of private investors. Organisations looking to offset their carbon footprint may seek the administrative and reporting efficiencies gained through investment in few or a single ELM project which delivers carbon sequestration. Others may seek security through investing in a range of schemes in order to achieve their net zero targets.

Biodiversity Net Gain Credits

Clause 92 of the Environment Bill sets out the plans for the development of a biodiversity credit purchase system. It suggests that developers will be able to pay a determined sum to fund biodiversity enhancement, most probably off-site if (it is assumed) it is deemed not be possible to achieve a net gain position within the development. The Bill sets out a restricted range of activities on which the Government can spend monies received in this regard, namely only for biodiversity net gain projects such as habitat enhancement or land purchase for conservation areas. This may present a good opportunity for blended funding with ELMS.

General

The contribution of ELM scheme funding towards these projects should be enhanced where private finance is made available to reward the saving to the public purse.

14 As we talk to land managers, and look back on what has worked from previous schemes, it is clear that access to an adviser is highly important to successful environmental schemes. Is advice always needed? When is advice most likely to be needed by a scheme participant?

Please leave your comments below:

The more complex elements of ELM such as flood alleviation must be designed with a direct source of expert advice and guidance made available in coordination with local RMAs. A barrier to the uptake of particularly more complex elements will be if a potential participant does not know where to seek assistance, or has to make 3 or 4 unsuccessful calls seeking assistance. A one-stop, knowledgeable A&G source will support greater uptake of more complex measures. With a little local advice and guidance, sought quickly and simply, the farmers confidence to be more ambitious with his plans could be supported and what was an individual field-scale plan could become a catchment-scale partnership, providing benefit to a much wider community.

Landowners working together will understand conceptually what is required across their joint catchment but they will require expertise and physical support to turn concepts into scheme design and practical application. Local RMAs such as IDBs are ideally and uniquely placed, and are keen and motivated to offer this. In the case of IDBs, they have existing relationships with individual landowners and understand both their individual needs and those of the wider environment and communities. Many RMAs have the practical expertise and capabilities, such as an understanding of local hydrology, to help farmers to turn their concepts for improved water-level management into real infrastructure and process.

It is vital the sources of advice and guidance are current and clear and where necessary have local relevance and knowledge.

We mention earlier in our response the need for ongoing support in order to maintain many features established under ELM relating to water-level management. This ongoing support needs to not only take the form of payments but also in some cases, advice and guidance in the form of regular inspection by a more specialized or technical responsible body to highlight any areas for improvement. For water-level management activities and related habitats, local RMAs such as IDBs or established wildlife charities are well placed to deliver such services in the long-term at low-cost, representing value for money for the public investment.

15 We do not want the monitoring of ELM agreements to feel burdensome to land managers, but we will need some information that shows what's being done in fulfilling the ELM agreement. This would build on any remote sensing, satellite imagery and site visits we deploy. How might self-assessment work? What methods or tools, for example photographs, might be used to enable an agreement holder to be able to demonstrate that they're doing what they signed up to do?

Please leave your comments below:

It is likely that the majority of water-level management measures will prove their successful outcomes purely through their establishment or via periodic use. However, it is likely that some features will need to be inspected periodically and reported upon by an independent specialist in order to ascertain if they are still able to deliver the outcomes required of them in line with the ELM agreement.

16 Do you agree with the proposed approach to the National Pilot? What are the key elements of ELM that you think we should test during the Pilot?

Please leave your comments below:

It is imperative that a range of water-level management solutions both on a farm scale and on a landscape scale are piloted in a number of areas. Such measures should include as a minimum floodplain restoration, run-off attenuation, flood alleviation via temporary water storage such as farmland inundation, channel widening and berm installation and freshwater and coastal habitat maintenance and creation. This will help to define the level and source of advice and guidance needed to support such measures, as well as identify the best way to structure payments, particularly where there are a number of elements involved such as construction, periodic use and on-going maintenance. Ada can recommend candidates for such pilots.

17 Do you have any other comments on the proposals set out in this document?

Please leave your comments below:

ADA and our members would very much welcome the opportunity to be involved with the developing ELM scheme.

Consultee Feedback on the Online Survey

18 Overall, how satisfied are you with our online consultation tool?

Neither satisfied nor dissatisfied

Please give us any comments you have on the tool, including suggestions on how we could improve it. :

Hard to provide context around answers without the opportunity to introduce your overall position.

Would at least be good to have some very basic formatting i.e. bold, underline and italic.