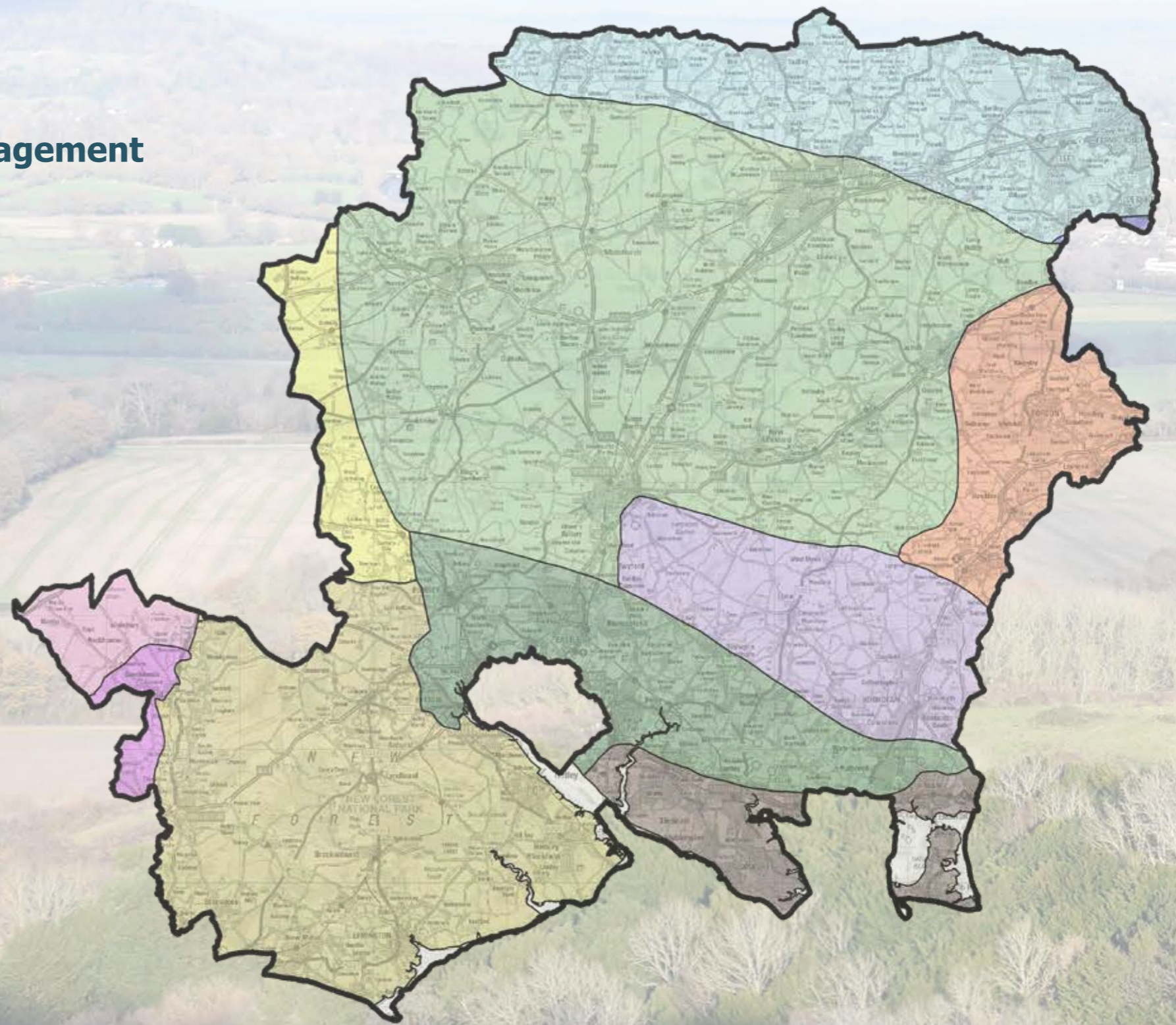# Farming in Hampshire:

National Pilot - Test and trialling a local governance of Environmental Land Management

ELM Convenor Advisory Board, Sponsored by Defra

Document 5 of 7

5

Prototype Toolkit
Development and Consultation

by Land App

Document 5 – Hampshire ELMS Convenor – Test and Trial

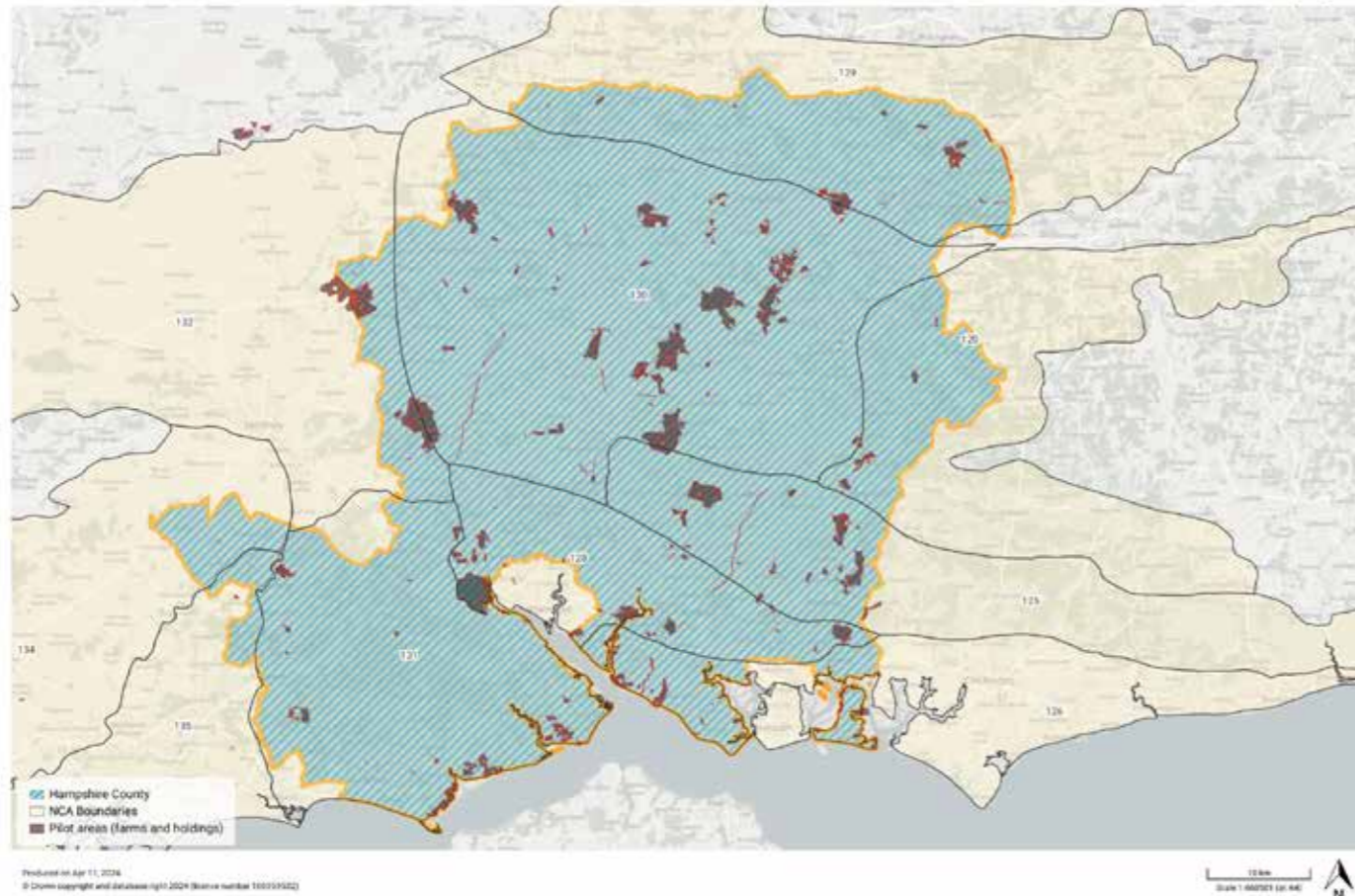## Land App Summary of Results and Appendices

Prepared by: Dan Geerah, Land App

Date: 14/05/2024

Contents

Project Overview

In total, 13457.40 ha was involved in the Pilot. A map of the Pilot Area involved:

Hampshire ELMS Convenor
Pilot Participants

Land App

Produced on Apr 11, 2024
© Crown copyright and database right 2024 (Source number 100035152)

Legend:
- Hampshire County
- NCA Boundaries
- Pilot areas (farms and holdings)

LandApp and building the prototype tool for consultation Methods:

Creating a Database of the Statutory Requirements and the Advisory Measures:

1. Terra Firma did the initial literature review.
2. Land App converted this Word Document into a standardised, cloud-based database, and provided a consistent structure for all measures to fit into the table. This was dictated by common themes that were found across the measures (Table 1).
3. Each row of the database was allocated a "where"; a geospatial identifier for where that Measure is relevant. This allows for the specific row in the database to be "included" or "excluded" from that layer. Where the farm boundary intersects this location, that measure will be displayed to the land manager.
   a. To set this up, Land App aggregated 41 datasets from various arms-length bodies, water companies and third-party providers via a Web Feature Service (WFS), and held the data on a secure cloud-based database (via PostGres). A full list of the data used can be found in Appendix A.
   b. All data was held in Vector format to allow for clean interoperability with the live database.

Sharing the relevant actions with the holdings

4. Each trial farm then used the Land App to generate an area of interest. This was either a holding boundary built of the HM Land Registry Title Numbers, Parish Boundaries (from Office for National Statistics) or RPA Land Cover (via the RPA API - https://environment.data.gov.uk/rpa/api-doc/)
   a. An Example Map can be found in Figure 1.
5. This land holding data was shipped, via the Land App API, to the Actions Database, whereby the processing engine filtered the data layers (found in Appendix A) by the data layers it intersected. Land App then built a bespoke Python-based Report Generator, extracting only the relevant actions for that farm as a PDF Report. This report was then emailed to the Trial Members.

Landholder consultation

Request for Pilot Participants

6. All Participants were invited to an hour overview webinar, hosted by the Project Team. These were all recorded can can be found here:
   a. Session 1: https://youtu.be/CoJXnKGi8G0
   b. Session 2: https://youtu.be/8wuKVszf-Dw
   c. Session 3: https://youtu.be/cT5RR0v4Ghk
7. After the session, each participant received a short email outlining what is required for them to participate in the trial, including links to guidance and an overview instructional video:

Hello [Trial Member Name],

Thank you for participating in the Hampshire ELMS Convenor.

Please read this email carefully to understand your expectations when completing the pilot. The stages we require you to go through (estimated time = 2 hours):

Click Through Instructional Video here: https://www.youtube.com/watch?v=YY-jAAIH0d4

- *STAGE 1 - Digest your report - please find some time to review the attached PDF "ELMS Convenor Report". This report outlines the project, your National Character Area Priorities, and your Statutory Obligations and Advisory Measures that we recommend you consider addressing on the holding.*
- *STAGE 2 - Choose your measures - please follow the hyperlink here to choose from your advisory measures the ones you would like to consider on your holding. Make your choices from the list by marking the 'checkbox' next to each measure.*
- *Once you have read and chosen your Advisory Measures, the "OUTPUTS_Your Mapping List" tab should now be populated with all your chosen measures.*
- *The Project team have selected a number of "High Priority Actions", highlighting key actions that you can complete to support the wider ambitions of the National Character Area.*

Document 5

Farming in Hampshire: National Pilot - Test and trialling a local governance of Environmental Land Management | May 2024

- *STAGE 3 - Map your plan - the Land App team has now set up a map for you to draft a Plan which you can access here.*
- *NOTE: if you haven't registered for the Land App, you should have an invite from the Land App team in your inbox. If this hasn't come through, please register here.*
- *From your list of chosen Actions ("OUTPUTS_Your Mapping List"), please map your chosen actions onto your Land App map. To guide you, there is a column called "Land App Mapping" - this should help you choose which plan in the left hand panel to map to.*
- *STAGE 4 - Complete a feedback form here - this will help the project team improve the service.*
- *STAGE 5 - Complete the Defra feedback form here to allow Defra to better understand how you found the process.*

If you have any questions, please contact the Land App Support team at support@thelandapp.com

Best wishes,

Dan, at Team Land App

8. Each participant was then requested to fill out a short feedback form to the Project Team, alongside the Defra feedback, asking about the Farm Actions Report, and the Land App mapping tool.

Table 1 - Structure of the cloud-based database containing the Statutory Obligations and Advisory Measures for the ELMS Hampshire Convenor. In total, there were XXX Measures in total (xx Statutory and xx Advisory). These columns were filtered by using a holdings boundary as an area of interest; this made the average number of measures for each trial participant xx (xx% of the total pool).

Column Heading	Description	Example Value
Category	Broad category which this measure falls in	SOILS
Sub-category	Sub-category of the action, used to filter the report and collate all actions under	SOIL QUALITY AUDIT
Regulatory compliance	States whether that action is a "Statutory Obligations" - actions that land managers MUST do OR "Advisory Measures" are actions that land managers COULD consider doing	Advisory
Regulatory compliance (sub-text)	Source of Regulatory Complaince for that Measure	UKFS Guidelines
Activity	A concise description of the Measure, prefixed with an artibtary number to allow for easier feedback.	(3) - Assess soil, test soil organic matter and produce a soil management plan for all agricultural land types.Obtain agronomic advice and in the development of agricultural management plans (for soil, manure, fertiliser and crop protection) which optimise the nutrient and pesticide efficiency and reduce losses through leaching.
Where?	The geospatial identifier for where that Measure is relevant. This allows for the specific row in the database to be "included" or "excluded" from that layer. Where the farm boundary intersects this location, that measure will be displayed to the land manager.	Agricultural land
Assisted Finance	Guidance for what funding mechanism can be applied for to support the delivery of the Action	(Existing SFI (SAM1)
Land App Mapping	The scheme or mapping template that the Measure can be illustrated on a map, via Land App	Sustainable Farm Incentive Plan
NCA Priority	Hand-picked Measures, chosen by the ELMS Convenor Board, flagging important actions based off the National Character Area's priorities. This enabled the project team to encourage higher-importance advisory measures. True or False only	TRUE
Outcome delivers	High-level summary of what their measure delivers, and for whom	All agricultural Land types. (SFI Actions Technical annex 2024) (Combined SFI and CS offer). (EFRAC Soil Health First Report)

		Wessex water all objectives, NCA 131 New Forest Wessex water all objectives, NCA 134 Wessex water all objectives, NCA 135
System	Farming system that the action is relevant for. For the trial, only farming enterprises received farming relevant actions. Arable farmers received measure across all farming types, 100% pastoral systems did not recieve arable Measures	Mixed
Production type	Conventional versus Organic; organic farmers did not recieve measures that were deemed conventional (e.g. pesticide usage)	Conventional: Arable

Consultation:

In total, we had 34 unique individuals registered for the workshops, representing 43 different sites. Of these 34 individuals, 28 registered to attend a live workshop and the other 6 requested the recording of a workshop.

Of the 28 that registered for the workshops, 21 individuals turned up, leaving 7 individuals to additionally receive the recording.

- Session 1: 7 attendees - https://youtu.be/CoJXnKGi8G0

- Session 2: 8 attendees - https://youtu.be/8wuKVszf-Dw

- Session 3: 6 attendees - https://youtu.be/cT5RR0v4Ghk

In total, we had 45 views on the recordings, of which 5 were internal project team views.

Creating Management Plans

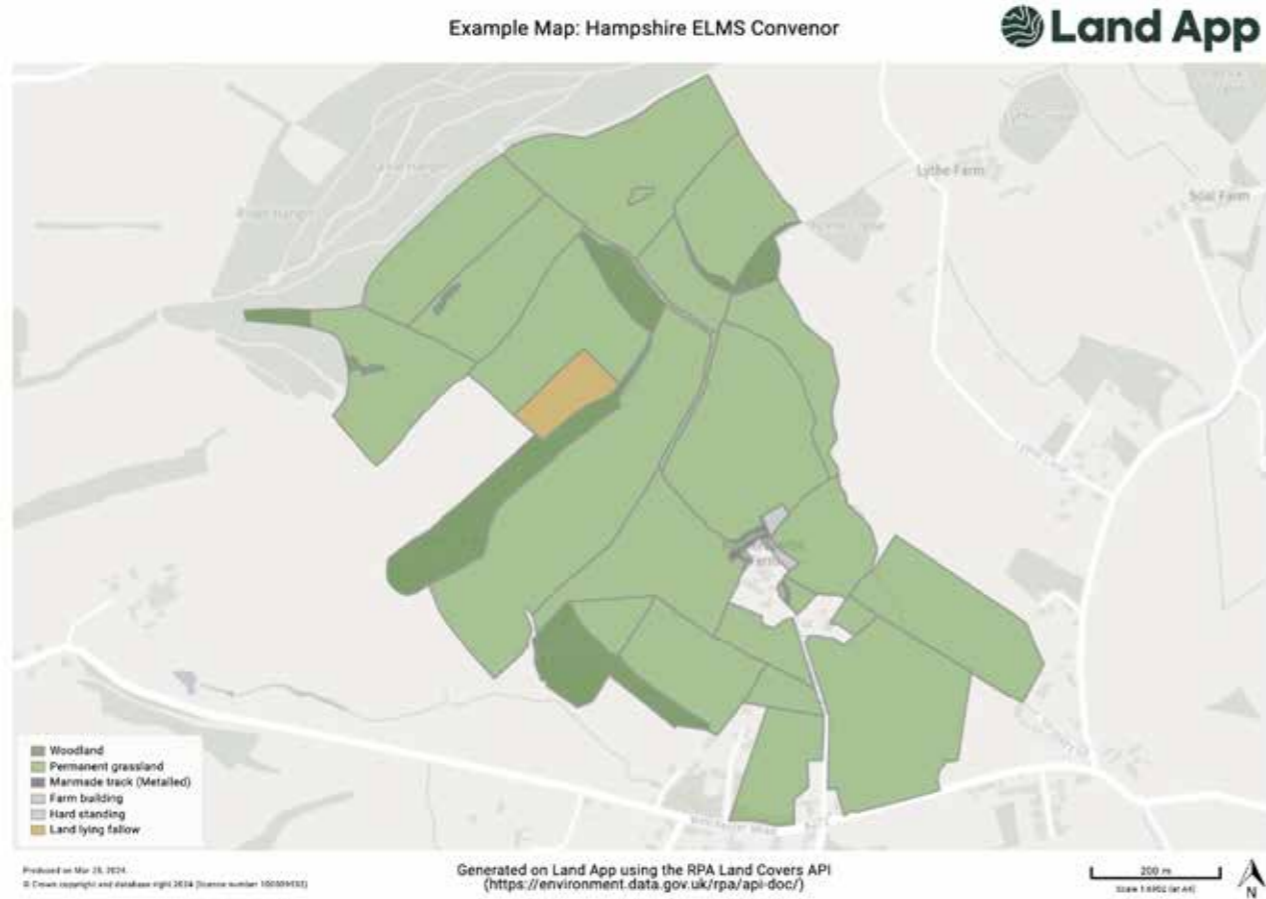Number of farms completing a Land Management Plan = 16

Across the 16 farms, a total of 307 actions were chosen, averaging ~19 actions chosen per farm

Top 5 Actions chosen by the Pilot group:

Top 5 ACTIONS:	Count	Measure Description
(926) Manage woodland edges on arable land	11	Provide strip of scrub or grass mosaic between the arable land and the existing woodland. Develop through natural regeneration
(928) Provide flower-rich field margins or plots	9	Increase habitat for pollinators and insects. Include small-scale interventions for wildlife
(3) Assess soil, test soil organic matter and produce a soil management plan	8	For all agricultural land types. Obtain agronomic advice.
(389) Planting new hedgerow	8	Slow the flow of flood water, and increase length of native hedgerows on farmland.
(1308) Maintain and improve existing provision of public access	7	Through woodlands, field edges, prevent trespass and misuse of farmland.

Document 5

Farming in Hampshire: National Pilot - Test and trialling a local governance of Environmental Land Management | May 2024

Example outputs

Example Baseline Land Cover Map

Map 1: an example holding map, created on Land App using the RPA Land Covers API (https://environment.data.gov.uk/rpa/api-doc/), with permission of the land owner. Data provided land cover of the holding, and allowed the farm to be geospatially tagged against the Measure Database, allowing the project team to quickly understand the context of the farm, including which National Character Area it resides.

Example Land Management Plan - map

The consultees were then asked to create a Land Management Plan, considering the various schemes that are currently in place (Sustainable Farm Incentive, Countryside Stewardship, England Woodland Creation and areas for potential private finance).

An example output from this can be found below:

Map 2 - an example output Land Management Plan, created on Land App showing where one farm could access multiple schemes on the same area. By planning schemes in parallel, users can compare different options (and payment rates), quickly access guidance, and view plans against other data layers.

Summary of the Feedback - by Land App

The Pilot allowed us to test a number of areas that are new to the market, and we have sketched this out in the infographic above, and split the work into four work-streams that were covered:

- **Work-stream 1:** creating a database that centralised the Statutory Obligations and Advisory Guidance for all farmers in the 6 Chosen National Character Areas.
- **Work-stream 2:** the formal creation of a Board across multiple stakeholders to support decision making, understanding how the measures can be prioritised locally, across each NCA.
- **Work-stream 3:** Third-party data providers providing data to support the Board with decision making, AND to the farmer for insight and opportunities.

Document 5

Farming in Hampshire: National Pilot - Test and trialling a local governance of Environmental Land Management | May 2024

- **Work-stream 4:** Use of a Mapping Platform (Land App) to serve land-management suggestions and empower farms to make a suitable decision on the future of their land management.

Feedback on the Land App and Farmer Report highlights issues with clarity and accuracy of actions, usability challenges, and technical glitches. Users suggest improvements for a more user-friendly experience and clearer guidance. Despite these challenges, there's positive recognition of the tool's potential to layer information and provide valuable data, indicating a need for refinements to fully meet user needs.

Feedback - Work-stream 1: Database

- Clarity and Relevance: Users found statutory obligations unclear and questioned the relevance of some actions. There was confusion over whether actions were current or future-oriented, and feedback indicated a desire for a clearer distinction between statutory obligations and actionable advice.
- Accuracy and Codes: There were several mentions of inaccuracies and missing codes for specific actions, making it difficult for users to apply the guidance to their specific circumstances.
- Clarification and Streamlining: Users requested clearer explanations, better organisation of statutory versus advisory content, and improvements in the overall ease of use.

Feedback Work-stream 2: the Board

- No Board Specific feedback was given through the Land App Feedback form

Feedback Work-stream 3: Third-party data providers (Eftec and Envsys)

- Availability of data: there was positive feedback from some participants about the content of the NCA Summaries in the report, it was felt that the crude level of the information made it hard to understand the context of their specific holding in relation to the data.
  - By making the data more readily available in formats that are interogatable, the tool can better deliver results based on the farm boundaries, rather than the entire NCA.
- Making the data more actionable: feedback mentioned that the data available from Eftec and Envsys would be better presented as a action where needed, rather than a summary.

Feedback Work-stream 4: Use of a Mapping Platform (Land App)

- Interface Challenges: Users faced difficulties with the tool's interface, such as issues with drawing lines and assigning codes, importing data, and navigating the tool effectively.
  - Land App is working on its User Experience (UX), however the vast availability of different scheme codes can be hard to manage. particularly around the
- Specific Function Problems: There were reports of problems like codes not loading, trouble with mapping actions, and confusion over how to use certain features or access help.
  - Using Land App is a skill that does require time; the project team is aware that more training, and upskilling of advisors will help educate users on how best to use the tool. Those participants that were already familiar with Land App were able to focus on the "Prototype" rather than having to learn a whole new system too.
- Suggestions for Improvements:

- Enhancements and New Features: Suggestions included making the tool more user-friendly, better marking of utilities, simplifying the demonstration of multiple actions on one area of land, and improving the visibility and utility of environmental action suggestions.
- Access to existing Data: numerous participants would like to see their existing schemes live, however this is difficult to process until Defra handles Digital Submissions of CSS / SFI Agreements.
  - This is a tough one to provide, as Defra does not have a geospatial database showing the location of existing Scheme Options. Our work under "Making Land Digital" (see below) will hopefully allow users to submit digital plans, thus enable Defra to host and serve-back to landowners where their current schemes are, reducing administrative burdens.

General Experience and Utility:

a. **Positive Feedback**: Despite some issues, there was positive feedback on the tool's ability to layer information, the clarity of maps and data, and the usefulness of specific features like distance measuring and data layers.

b. **Overall Satisfaction**: Users appreciated the comprehensive data collection and the potential of the tool, though some expressed the need for training or further guidance to fully leverage its capabilities.
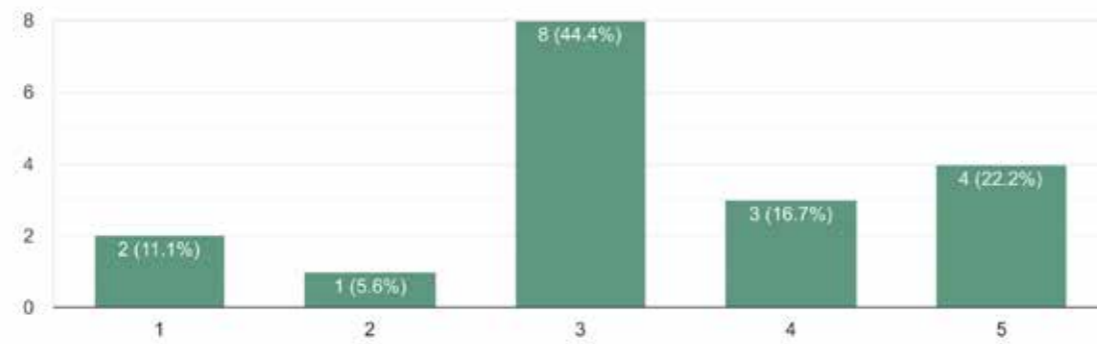
Feedback - Summary

Questions included some long-answer questions and some categorical questions, using the scale below:
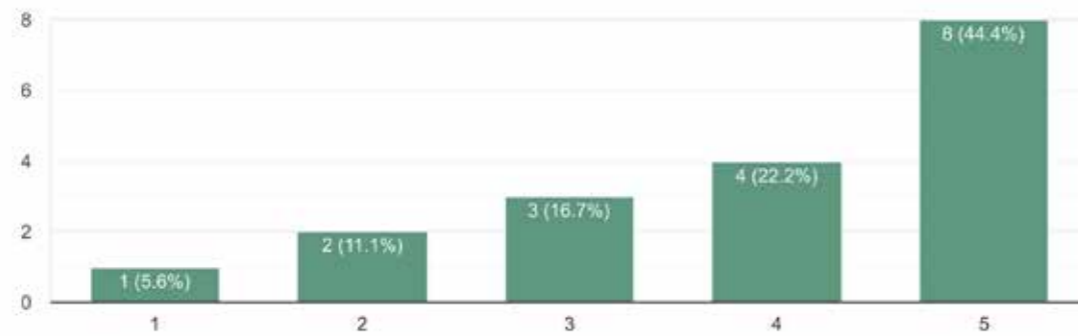
	1	2	3	4	5	
Extremely bad	○	○	○	○	○	Extremely good

How helpful was the report that you received?
18 responses

How easy was the report to access?
18 responses

Overall, how would you rate your experience with the Land App maps?
20 responses
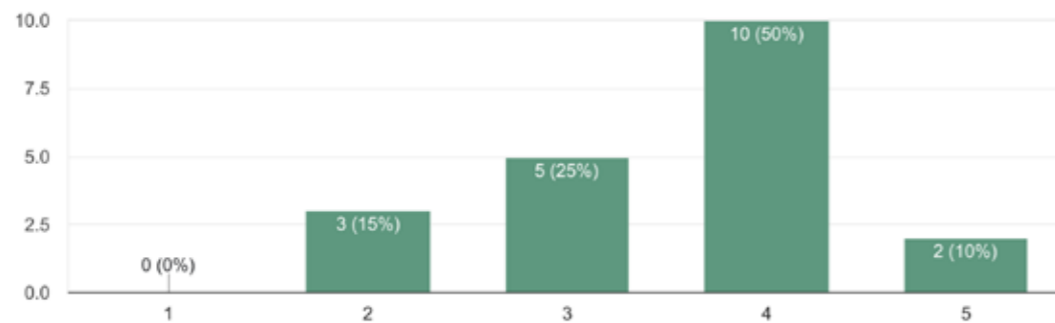
Table 2: total number of Measures across the two compliances; "Statutory Obligations" - actions that land managers MUST do OR "Advisory Measures" are actions that land managers COULD consider doing. The Unknowns were actions that were unclear whether Statutory or Advisory.

Regulatory compliance	Count
Advisory	965
Statutory obligation	167
Unknown	152
Grand Total	**1315**

Table 3 - Total number of Measures against the Categories

Category	Regulatory compliance	Count of Measures
ANIMAL WELFARE	Advisory	5
CLEAN AIR	Advisory	9
CLEAN AIR	Statutory obligation	2
CLEAN AND PLENTIFUL WATER	Advisory	69
CLEAN AND PLENTIFUL WATER	Statutory obligation	24
COMPLIANCE WITH BIOSECURITY (ENVIRONMENTAL HAZARDS)	Advisory	11
COMPLIANCE WITH BIOSECURITY (ENVIRONMENTAL HAZARDS)	Statutory obligation	17
EQUIPMENT TO IMPROVE FARM MANAGEMENT EFFICIENCY & COMPLIANCE	Statutory obligation	1
FARM / ESTATE DIVERSIFICATION	Advisory	37
FARM / ESTATE DIVERSIFICATION	Statutory obligation	3
FOOD PRODUCTION - Mitigating and adapting to climate change	Advisory	18

12

13

Document 5

Farming in Hampshire: National Pilot - Test and trialling a local governance of Environmental Land Management | May 2024

HABITAT MANAGEMENT	Advisory	90
HABITAT MANAGEMENT	Statutory obligation	1
HERITAGE ASSETS ON THE FARM	Advisory	4
HERITAGE ASSETS ON THE FARM	Statutory obligation	10
PROTECTING FOOD PRODUCTION	Advisory	5
PROVIDE WATER FOR WILDLIFE AND POLLINATORS	Advisory	3
RISK MITIGATION	Advisory	24
RISK MITIGATION	Statutory obligation	1
SOILS	Advisory	71
SOILS	Statutory obligation	12
Southern Water's Nitrate Measures Initiative	Advisory	1
Southern Water's Nitrate Measures Initiative	Statutory obligation	6
SUPPORTING LARGE-SCALE LANDSCAPE ENHANCEMENT INITIATIVES	Advisory	40
SUPPORTING LARGE-SCALE LANDSCAPE ENHANCEMENT INITIATIVES	Statutory obligation	1
USING 'NATURE CONSERVATION' MEASURES TO SUPPORT FOOD PRODUCTION	Advisory	156
USING 'NATURE CONSERVATION' MEASURES TO SUPPORT FOOD PRODUCTION	Statutory obligation	23

How can the trial feed into wider-picture initiatives?

Making Land Digital

A key initiative is forming in the land-sector; a consortium of leading organisations and land owners in the UK is asking for a digital transition; "Make Land Digital". This digital transition is to follow the path used by HMRC through their highly successful "Make Tax Digital" campaign, which now is the de facto process for submitting tax returns to the government.

The role that HMRC played in this transition exemplifies the way in which policy can drive change, and harness the value of the private market. HMRC released 'business rules' through an API service - defining

the required format for digital submissions. This encouraged many "tools" to be created by the private market to assist applicants in the submission process (e.g. Xero or Quikbooks)

At present, the existing Countryside Stewardship (CSS) requires an applicant to submit a map displaying both existing environmental features (on a "FER - Farm Environment Record") and CSS options ("OPT - Option Map"). These have to correlate with a spreadsheet that summarises the options, payment rates, and field parcels included on their application (Annex 2 form). These maps are required to be in PDF form.

Over the last 5 years, mapping tools have been developed to assist the planning and creation of these plans, with huge success. Land App, an easy-to-use digital mapping platform has seen its numbers double annually since its launch in 2017, with over 15,000 users now registered. In particular, over 8,000 CSS plans have been drawn on the Land App between 2021-2022. Tools such as Land App enable users to scenario plan, amend and collaborate on designing a CSS with ease. Furthermore, all of these CSS plans have been created using authoritative field parcel data (that is accessed through an API from the Rural Payments Agency); accurate areas, field parcel numbers and land cover class codes.

The evidence: HM Government has overseen a transition from paper-based to digital transition before: "Making Tax Digital". A summary report from HM Government for the benefit of MTD for small businesses highlights the overwhelming success of MTD, including key areas where time was saved such as "checking for errors" (67%), "inputting data" (67%) "amending errors" (54%) and "submission of return" (14%). Moreover, 53% "were more confident that the business is getting tax right", whilst 44% felt "more on top of tax liabilities". Clearly, the transition to a digital system brought substantial benefits, both to government bureaucracy and in the confidence of scheme participants.

The Geospatial Commission's report with eftec, Mapping the Species Data Pathway: Connecting species data flows in England, analysed the cost-benefit ratio of making geo-spatial data available to the public. It highlights the potential of a maximum of £34 bn to be unlocked through funding and access to natural capital markets. Ensuring access to relevant geo-spatial data layers to appraise potential for environmental uplift and carbon sequestration, then, is a prerequisite for market formation and the guarantee of environmental outcomes.
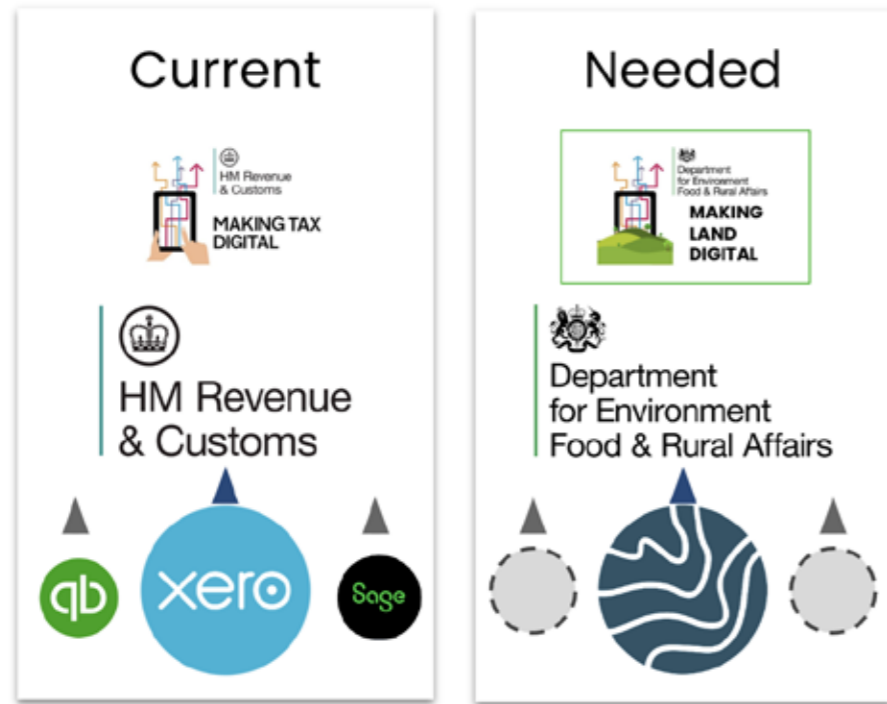
Engaging Water Companies – Using Digital Platforms to Facilitate Ecosystem Service Payments

The additional benefit of getting farms to have a "Digital Map" is being piloted by Land App and the Irwell Catchment Partnership; the local water company, United Utilities, has unlocked £1 million of funds to deliver to farms in target areas, for the mitigation of phosphate through land-use change. Land App is supporting United Utilities to communicate directly with existing Land App users, who sit in target areas (high-risk fields, riverside land owners) to build digital plans for how they can mitigate phosphate. These digital plans can then be shared with United Utilities, and have their potential phosphate mitigation values associated.

Summary conclusions

1. Clarity is key - the structure of arm-length bodies is an essential framework for Defra to mobile and scrutinise from itself. However, from a farmer's perspective, the more they can do to "sing off the same hymn sheet' (hugely apparent by the diversity and inaccessibility of the statutory obligations), the better.
2. Filtering the noise - we appreciate there is a huge amount for farmers to legally know and a huge amount we need them to deliver. The more we can do to "reduce noise" to the sector the better. Our method of communicating to farmers based on their location (thus avoiding people hearing

about things not relevant to them) has begun to explore a whole new infrastructure. Knowing the farm boundary is an effective way of doing this.

3. LNRS and CSS - there is still a disconnect between what the "top-down" strategy is trying to deliver, and what the "bottom-up" farmer mindset is delivering. We must empower the farmers to deliver the LNRS in line with their farming businesses. And by treating the LNRS as a way of justifying certain CSS or SFI options in certain places, I am confident we can do both.
4. Access to Data - even within our trial, there is great data available that can support farmers in making good decisions, but it needs to be accessible. Consolidating all the research projects into actionable data for farmers will bring efficiencies to the whole. I will include a recommendation to the Board (and Defra!) on how the LNRS, and consultancy data that has been funded by the public purse (including the Eftec / EnvSys data) can be made actionable through a CSS Plus lens.
5. Role of Advice - all of the above IS COMPLICATED. There is still a massive need for the sector to empower a new generation of advisors, aware of the nuances of farming business and the local/national objectives. The more Defra can do to support advice / training the better. The CLA, NFU, FWAGs, Wildlife Trust, etc are up for the challenge, and we must find routes to catalyse this.

Appendices

Data used

Appendix A: Data layers used by Land App to filter the actions within the database, and compare to a farm or holdings boundary. Each layer provided a route to filtering specific actions based on whether the farm intersected (or overlapped) with the action.

Where? Name	Data Source Name
Agricultural land	RPA Land Covers
ALG: 1	Agricultural Land Classification
ALG: 2	Agricultural Land Classification
ALG: 3a	Agricultural Land Classification
ALG: 3b	Agricultural Land Classification
ALG: 4	Agricultural Land Classification
ALG: 5	Agricultural Land Classification
Ancient Woodland (< 75m)	Ancient Woodlands (plus a 75m buffer)
AONB	Area of Outstanding Natural

	Beauty (no National Landscapes)
Arable	RPA Land Covers
County	Counties and Unitary Authorities
Floodzone	Flood Zones 2
Grassland	RPA Land Covers
NCA: 125	Natural England
NCA: 130	Natural England
NCA: 131	Natural England
Non-Agricultural land	RPA Land Covers
NVZ	Environment Agency
Peat Soils	Natural England
Priority Habitat	Natural England
Protected Drinking Water	Environment Agency
Rights of Way (100 m)	Highways England - Public Rights of Way
River buffer (<100 m)	Ordnance Survey - Open Rivers
Scheduled Monuments	Historic England
Sensitive Water Catchments	Environment Agency
Surface Water Nitrate Priority Areas	Environment Agency
Surface Water Pesticide Issues Priority Area	Environment Agency
Water source - spring or borehole (<50m)	Environment Agency
Woodland	Forestry Commission - National Forest Inventory
Catchment: Southern Water	Southern Water Catchment

Raw feedback from Consultation

What features did you find most useful in the Land App map? (15 responses)

- *I like the way you can build the layers of information though on my map it did not have utilities mapped as I know I have a high pressure gas main and an 12" water main supplying the local town running across it*

- *Measuring distance and area*

- *Duplication of layer and being able to move them to different plans. selecting options and getting payment/ha and how much that is for the area selected.*

- *Detailed options to view criteria such as right of ways/ water etc.*

- *Water movement layer was very interesting. Quick to assign stewardship options*

- *looking at the wetlands was great as it identified the spring which we always believed to be there!*

- *The map is clear to read. Land registry data is helpful for determining boundaries.*

- *CS and SFI templates*

- *I am afraid that I was not able to get that far*

- *Loved the data layers - discovering where all the SSSI boundaries are and historic landfill very interesting and would love to know how to access this data*

- *Drop down boxes*

- *I cant answer this as I couldnt map the actions on our land*

- *Even though we are already in CS Higher-Tier – it is good to see all the various possibilities listed in the OUTPUT table, as there may be bolt-on's such as SFI, which we can learn about.*

- *Good to be able to add CS option codes - why doesn't this automatically show on the field when you select that option?*

- *Good to be able to multi-select fields with the same options.*

- *Flood/water flow/ponding features really useful, as a regular user of Landapp, it would be good to have these more widely available.*

- *Interesting to be able to map specific actions to see potential payments*

What improvements or additional features would you like to see in future versions of the tool? (14 responses)

- *Include all current CS and SFI actions. Suggest locations for Environmental action - dont just rely on farmer choosing*

- *A simple way of being able to demonstrate multiple actions on one area of land. A specific report that only include the actions for that scheme (i.e. SFI and CS), with none of the extra information that isn't needed. Using habitat mapping to find the specific areas we can do the actions.*

- *Option to access checklist mgt plan on same screen as Land App mapping.*

- *Our recommendations were based around CSS not SFI which felt outdated. No information about private funding options. Our report included information not applicable to us so wasn't site specific*

- *Needs to be more user friendly for someone new to this type of software. Finding useful relevant information was seemingly incredibly difficult*

- *None - the latest upgrades are working well and the detailed toolbox descriptions was very helpful*

- *Install the assign use button. Codes need to be included and easy to find. Found it really difficult to work out how to create a split screen*

- *Better marking of utilities there are services such as gas mains and water mains of the 300mm size across my farm that are not marked*

18

19

Document 5

Farming in Hampshire: National Pilot - Test and trialling a local governance of Environmental Land Management | May 2024

- Easier to understand

- In my experience, when preparing a grant scheme, most farmers want to be able to print out a single plan of the finished product with everything clearly shown on it. So where you have layering going on (particularly say for CS or SFI where you can have more than one thing happening and supplements also across a whole field parcel), you need to be able to show the base layer of the relevant management option(s) with the supplement overlaid so the two items are clear on one plan. At the moment, I always end up preparing hand-drawn plans for clients where this occurs because what they really want is everything just on one A3 plan which they can laminate and take out into the field and which has everything clearly shown on it.

- For example, I have a mixed arable/grass farm which has native breed grazing as a supplement across different grassland options. So the different grass options have different base colour codes across them to distinguish them but the supplement is just little crosses in black ink on top so that they can instantly see which fields the natives need to graze and which they don't. They also have other supplements on the farm such as difficult site supplement (for the most challenging grazing areas) and this I do as dots so, again, you can instantly see which fields have both supplements and which only one supplement or none.

- It is difficult to show on your system at the moment the different layers due to the current colour coding of them so I was just wondering if there is a way that Land App can simplify its standard colour system to make this aspect of printing (and also viewing on screen) easier. Eg, not have a solid colour allocated to a supplement but perhaps just a series of whatever coloured crosses/dots/dashes (however many combinations needed to match the number of supplements across all schemes) on a transparent background which could then over-sit the basic management option colour. The SFI potentially has more whole field options as 'supplements' to the main management options such as soil management plans or IPM1 as an overlay but I would have thought there should be a way of doing this although appreciate it probably needs a bit of thinking about!

- be able to map our land

- Option codes automatically added to fields when options selected.

- actually i need more tuition/time to understand how to use it

- more explanation of the data we are looking at on the different layers

Do you have any other comments or suggestions for us? (12 responses)

- Many of us went through this process many years ago. Whilst it will be a useful tool for someone considering conservation actions for the first time it has limited application for those who have been in various schemes for 30+ years.

- no

- Would have liked to have spent more time to master but lots on.

- Having an option to assign multiple whole field options e.g. SAM1 with IPM3

- Introductory information in the report wasn't site specific e.g. referenced the South Downs National Park which we are not in, also didn't know we were in an NVZ. And had outdated information not applicable to hampshire like describing a large farm as >100ha.

- Spread sheet options included switching to non-metaldehyde slug pellet which are already banned.

- Plus the report catagorised creating lowland heathland as a measure to support food production when it would be a clear land use change so should be under a different category.

- We are not computer literate and we did struggle with this.

- The main issue for us was to try and get the map to firstly show us boundaries of woodland/Greenspace and then to daw data to show us how it can be funded/ managed. Trying to get this map to collaborate with the spreadsheet was not achievable with an entry level of knowledge on how the software works. How can you show this tool working in a parish council environment instead of a bias towards agricultural land.

- No

- It was certainly not as easy to use as the demonstrations suggested, and I have watched the demonstration farm video at least three times, and had a demo from a professional in my office. However, like other mapping systems that I have used had I had some training on a one to one basis in slow time it would be btrilliant. I fear that it will be a tool for professionals, but that should not detract from its usefulness as it is such a comprehensive collection of data

- This is a useful tool for finding out information but tricky to create more detailed zones on more natural habitats such as woodland other than fields

- This was a trial - I have treated it as such. We have a very complicated multi-option CS Higher-Tier agreement running on the farm; it would have been good to see these options migrated across in the map provided - as they were not, it would have taken many hours to amp all of our options onto the LandApp map. Instead I simply allocated a few options to different fields to try out the mapping tool. Overall very good once you got into it. I am not sure that all farmers would be able to do this, but their agents would.

- dan's video of how to use the map was good, but when i tried to use it.....i just didnt seem to be able to master it....(again more than likely my lack of computing skills)

- my lack of skills has made this exercise which has SO MUCH POTENTIAL rather frustrating for me

- The identified priorities/actions useful to have in a targeted report on a farm by farm basis. I think this would be particularly useful in a farm cluster group scenario.

- Specific/suggested priorities for each farm are a good place to start and perhaps focus the farmers mind, ultimately, I think decisions are made with a financial point of view. Within the table of priorities, perhaps there should be an additional column with payment rates as well as the assisted finance options available.

If you encountered issues with Land App, please describe the issues you encountered.
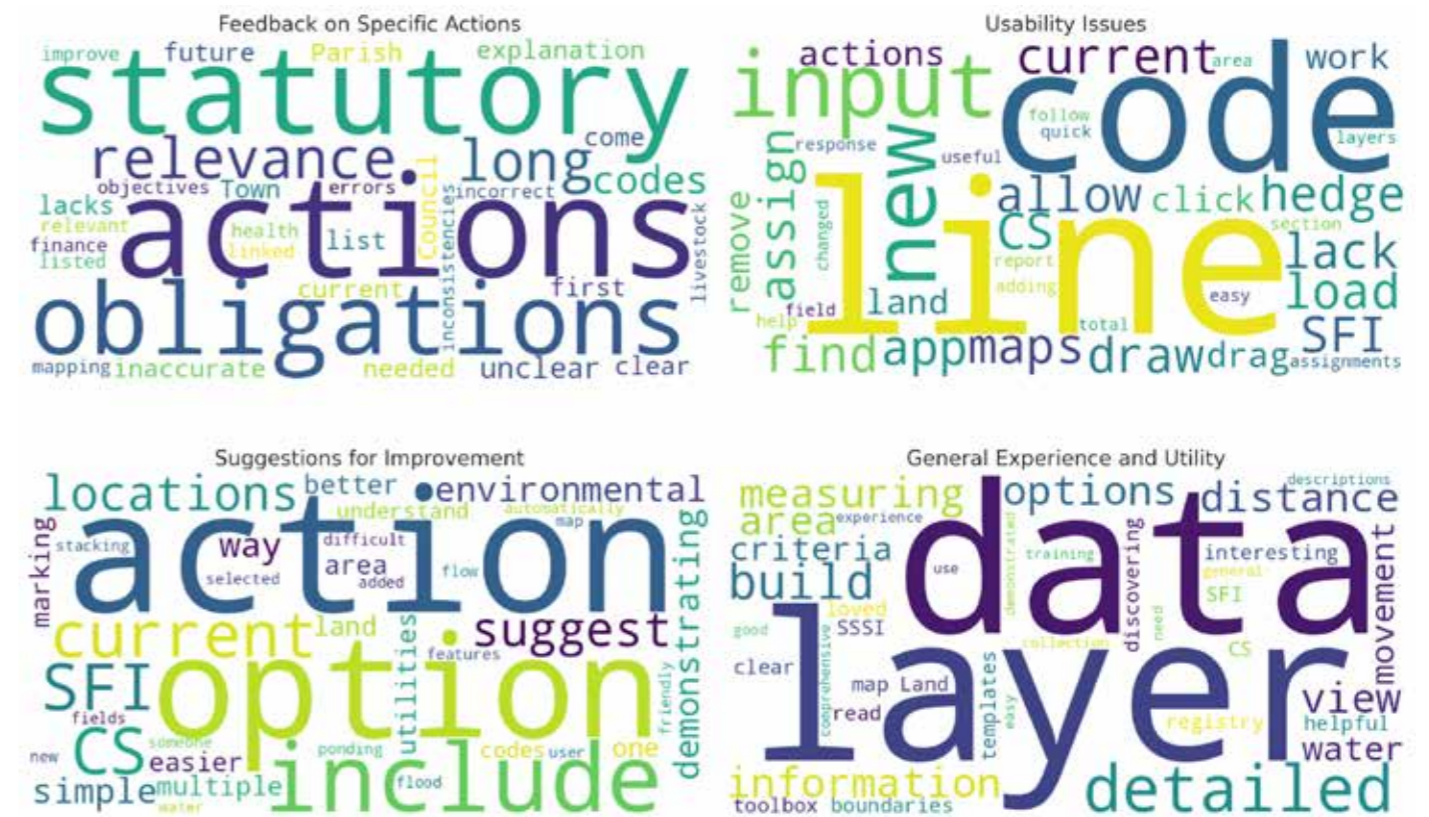
- when trying to input new hedge lines the app would draw the line but then not always allow me to assign a code to it

- Lack of Current CS abd SFI on maps

- Codes would not load (BN11 / GS6) to allocate to blocks. I also managed to delete a block while attempting to split it.

- Couldn't work out how to remove land assignments but I had a quick help response from Land App on what to do

- "Our map covered more than the area we own so the waterways belong to our neighbours. It was not split into polygons and was one big area.

- I couldn't seem to find a way to create smaller areas although on the video it looked straight forward and I could draw lines. Couldn't find the 'assign' button. There was only a 'change' button. The video was good, but my map didn't look like the one Dan was working from."

- The tool may be quite useful but, we struggled to find relevant information. The biggest issue being determining the relevance between the actions list and Land App. Ultimately we see us using it for determining whether funding streams available for certain green practices but, could not get this to show when highlighting land areas. Do we have to create the land boundaries and then populate it with data to then source what funding is available. If so, how?

- I was ask to spend no more than two hours, and wasted time trying to download the initial pdf.. I spent more time reading the list of statutory items, I have not used The Land App before, and whilst I could see that it was any amazing tool, I would need some hours of training to make the system work for me.

- Assign use tab was not available so clicked on change button. No codes so had to hunt manually to find anything relevant to map e.g. Tree planting native broadleaf. Tried split and it worked after 3rd attempt to create a smaller zoned area for rhododendron but you have to overlap and ensure double click. Not easy

Document 5

Farming in Hampshire: National Pilot - Test and trialling a local governance of Environmental Land Management | May 2024
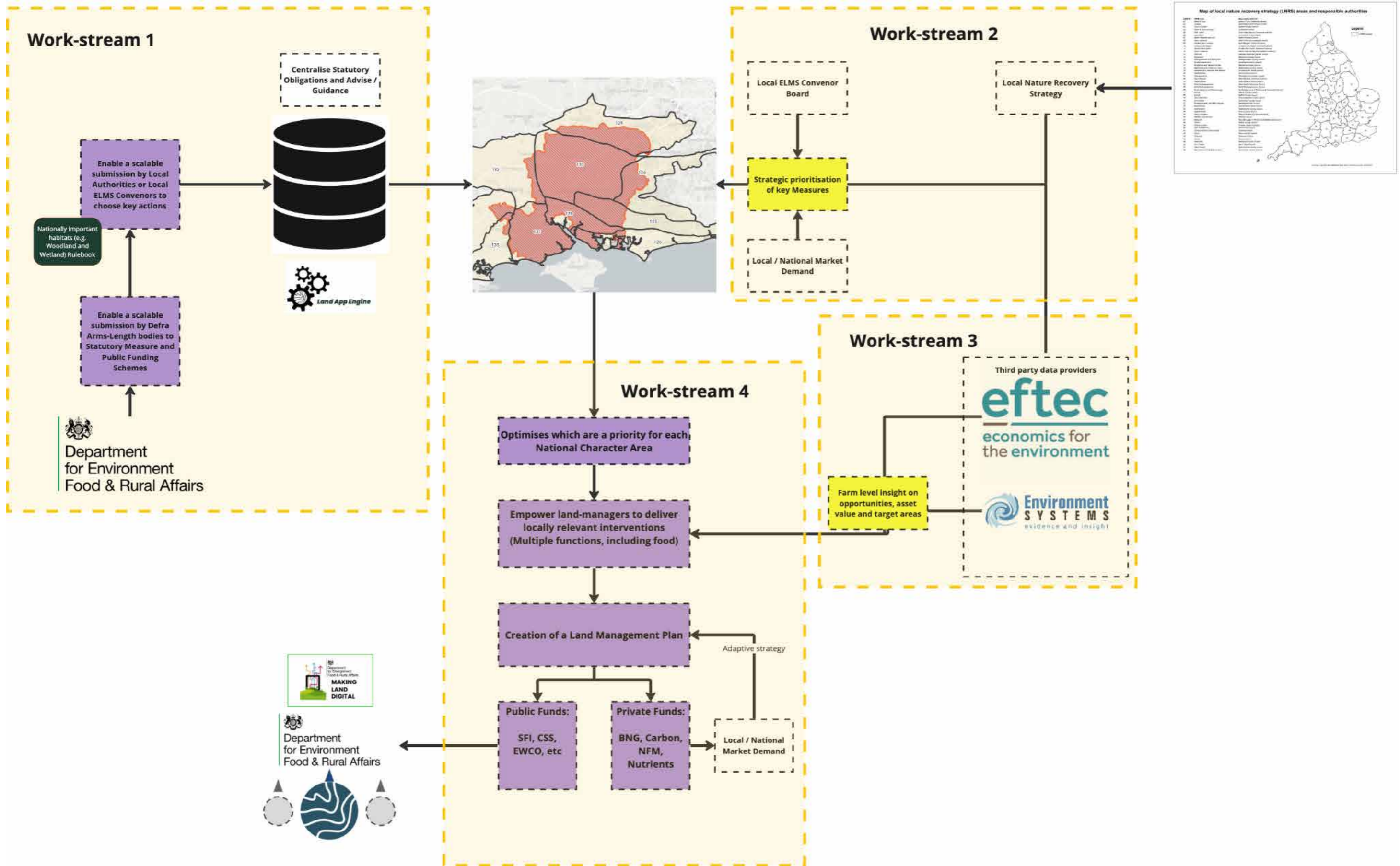
to create small areas for detailed land improvements. Whole blocks are much easier but not all the habitat is found within the block so fairly inaccurate.

- Not easy to follow couldn't find any of the actions to click and drag

- "Report section useful but when adding layers to a particular field eg SAM1, IPM1 and AHL4, on the final report it changed the total area of the field from 5.0287ha to 10.6090ha (ie 2 x 5.0287 ha to represent the SAM1 and IPM1 and 0.5516ha of AHL4. So the total field size is misrepresented. Also the line used to draw/create a buffer is pulled through onto the report which is also a bit confusing so I presume having drawn the buffer we need to delete the line so this does not show up on the final report?

- Unfortunately Stage 2 did not work for me as the Google Doc did not allow me to edit my activities and add to the management plan as it was locked for viewing only. But I could see that whilst there were 16 advisory measures for the NCA shown on the farm report, on the spreadsheet there were 183 given instead which was a huge number to go through.

- "Our land isnt mapped so I couldnt load the actions I wanted to

- "LandApp Map – there are two SBIs on the estate, however only one set of RPA field data has been imported onto the LandApp map.

- We are in CS Higher-tier. Even though guidance was sent to import the options already on farm – we were not able to import the field data. Landowners receive an Options Map from RPA and this does not come in any of the formats suggested under 'Export'. They come as PDF.

- It is a shame that the CS option data has not been brought across as part of the mapping supplied to the farmer – as this would enable them to see where they might add to what they already have on farm.

- remember i am 70 and so the fault is probably mine.....but i have struggled to use the tools effectively. for example i chose no 4 (928) to map. chose a field, used CS......then AB8 as suggested wasnt available

- Stacking - difficult to map fields where stacking of options is available, i.e. how to show SAM1 and SAM3 simultaneously.

- We couldn't add actions to the map that didn't have a code associated eg the EWCO actions, this may be down to us not understanding how to use LandApp well enough.

Summary of the keywords used in the feedback form:

Diagram of the Workpackages tested

22

23

Document 5

Farming in Hampshire: National Pilot - Test and trialling a local governance of Environmental Land Management | May 2024

Work-stream 1

Centralise Statutory Obligations and Advise / Guidance

Enable a scalable submission by Local Authorities or Local ELMS Convenors to choose key actions

Nationally Important habitats (e.g. Woodland and Wetland) Rulebook

Enable a scalable submission by Defra Arms-Length bodies to Statutory Measure and Public Funding Schemes

Land App Engine

Department for Environment Food & Rural Affairs

Work-stream 2

Map of local nature recovery strategy (LNRS) areas and responsible authorities

Local ELMS Convenor Board

Local Nature Recovery Strategy

Strategic prioritisation of key Measures

Local / National Market Demand

Work-stream 3

Third party data providers

eftec economics for the environment

Environment SYSTEMS evidence and insight

Farm level insight on opportunities, asset value and target areas

Work-stream 4

Optimises which are a priority for each National Character Area

Empower land-managers to deliver locally relevant interventions (Multiple functions, including food)

Creation of a Land Management Plan

Adaptive strategy

Public Funds: SFI, CSS, EWCO, etc

Private Funds: BNG, Carbon, NFM, Nutrients

Local / National Market Demand

MAKING LAND DIGITAL

Department for Environment Food & Rural Affairs

Table of Key Results:

Category	Detail	Total / Average	Breakdown
Total unique Registered		34	
Total sites Registered		43	
Consultation	**Signed up for**		
	Workshop	28	
	Recording	6	
	Actual		
	Number of Attendees to workshops	21	Session 1: 7, Session 2: 8, Session 3: 6
	View on recording	45 views	5 of which likely internal
Number of farms completing a shortlist		16	
The average number of Measures per trial farm	**No. chosen actions**		
	Total actions chosen	307	
	Average actions chosen per farm	19	
	Top 5 ACTIONS:		
	(926) Manage woodland edges on arable land	11	Provide strip of scrub or grass mosaic between the arable land and the existing woodland. Develop through natural regeneration
	(928) Provide flower rich field margins or plots	9	Increase habitat for pollinators and insects. Include small scale interventions for wildlife
	(3) Assess soil, test soil organic matter and produce a soil management plan	8	For all agricultural land types. Obtain agronomic advice.
	(389) Planting new hedgerow	8	Slow the flow of flood water, increase length of native hedgerows on farmland.
	(1308) Maintain and improve existing provision of public access	7	Through woodlands, field edges, prevent trespass and misuse of farmland.
Number of users completing a "map of actions" via the Land App		**15**	
Feedback	**Number of users completing the feedback**	20	