

Environment and Rural Affairs Monitoring & Modelling Programme (ERAMMP)

ERAMMP Report-59: SMS Natura 2000 Restoration Award Evaluation

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Abbreviations Used in this Report

ARC	Amphibian and Reptile Conservation
BTO	British Trust for Ornithology
DECCA	Diversity, Extent, Condition, Connectivity and Adaptability
ERAMMP	Environment and Rural Affairs Monitoring & Modelling Programme
IEEP	Institute for European Environmental Policy
IMP	Integrated Modelling Platform
LIFE	L'Instrument Financier pour l'Environment <i>(the EU's funding instrument for the environment and climate action)</i>
N2K	Natura 2000
NRW	Natural Resources Wales
NRW/CCW	Natural Resources Wales/Countryside Council for Wales
PIP	Prioritised Improvement Plan
RIVPACS	River Invertebrate Prediction and Classification System
SAC	Special Areas of Conservation
SFARMOD	Silsoe Whole Farm Model
SFS	Sustainable Farming Scheme
SMNR	Sustainable Management of Natural Resources
SPA	Special Protection Areas
UKCEH	UK Centre for Ecology & Hydrology

Abbreviations and some of the technical terms used in this report are expanded on in the programme glossaries: <https://erammp.wales/en/glossary> (English) and <https://erammp.cymru/geirfa> (Welsh)

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Annexes referred to in this report can be found in the separate Technical Annexes documents 59TA1 and 59TA2 (<https://www.erammp.wales/59>)

1 INTRODUCTION

1.1 SMS Natura 2000 Restoration Award 2020-21

The **SMS Natura 2000 Restoration Award** is a non-RDP grant scheme funded by the Welsh Government (WG) that aims to support landscape-scale capital investment delivering action to improve the condition of Natura 2000¹ ('N2K') sites. The scheme was launched on 8 July 2020 and successful applications had to be implemented by 31 March 2021.

1.2 Purpose, scope and methodology of this evaluation

1.2.1 Purpose and scope

The Welsh Government commissioned ERAMMP² to undertake an independent, evidence-led review and assessment of a subset of accepted applications for this grant in 2020.

This review does not assess the objectives of the scheme, and is explicitly not linked in any way to Welsh Government verification and payment assessments at project-level. In addition to delivering the brief commissioned, this report makes a number of recommendations based on its findings that are intended to inform the future design of this grant scheme.

1.2.2 Methodology

As the evaluation was taking place during the implementation period of the approved projects the methodology had to be tailored to the short timescale and the project details available.

The evaluation was structured around the completed application forms for the 15 projects which were awarded grants in the 2020 application period (out of a total of 22 applications). It was immediately clear that three of these 15 applications each comprised a bundle of separate projects in different locations and with different actions. For the purpose of the evaluation these three were divided up into their constituent projects, giving a total of 34 projects in all.

The characteristics of all 34 projects were summarised (Technical Annex-1; separate document³) and a sub-sample of 17 projects was selected using the criteria that they should as far as possible represent the range of different locations, Natura 2000 objectives, actions and type of applicant. This sub-sample was the subject of more detailed analysis by a team of expert reviewers, using a standardised evaluation process:

- Step 1: For each project, proposed actions were identified, together with the affected Natura 2000 site(s) and any habitat/species/feature which was targeted.
- Step 2: For each action, the type of activities, expected outcomes and information about any targeted habitat/species/feature(s) were summarised (Table 1.1)
- Step 3: For each action the following evaluation questions were answered:

¹ https://ec.europa.eu/environment/nature/natura2000/index_en.htm

² www.erammp.wales

³ <https://www.erammp.wales/59> '59TA1'

Q1 Is there good evidence for the potential impact of this action on the condition of targeted Natura 2000 habitat(s) and /or species?

Q2 Are there potential environmental benefits at landscape scale within or beyond the Natura 2000 site itself, or additional biodiversity benefits within the site for non-target habitats or species?

Q3 Are there simple metrics for monitoring/evaluating the impacts of this action

Q4 Are there potential benefits for the local economy?

Q5 Are there potential benefits for increasing engagement of the local community in the Natura 2000 site(s)?

Step 4: The outputs of steps 1-3 for each project were reviewed at a meeting of the whole team, to ensure consistency of approach, with particular attention paid to Q1. For that question 'traffic light' criteria were used to indicate the extent to which scientific evidence supports the expected impact of the action on the targeted Natura 2000 habitat(s) and /or species (see Section 3.2.2, p.7, for details).

Table 1.1 Key information about each project and data sources

Information	Data source
Natura 2000 site(s) relevant to this action	Application form
Habitat/species/feature of the Natura 2000 site targeted by this action	Application form
Brief description of action	Application form
Scale of implementation	Application form
Potential direct/indirect impacts of the action on restoration of this habitat/species/feature	Application form
Potential additional benefits	Application form
Condition assessment of the target habitat/species in this/these Natura 2000 site(s)	Extracts from updated Lle ⁴ datasets, provided by NRW
Issue or risk for the habitat type/species/feature <i>in the</i> Natura 2000 site which the action addresses	PIP report and matrix for each Natura 2000 site

⁴ The Lle Geo-Portal is a partnership between Welsh Government and Natural Resources Wales to provide a hub for data and information (primarily about nature & environment). <http://lle.gov.wales/home>

1.2.3 Data sources and limitations

The three main data sources used in this evaluation were the project application forms, the Prioritised Improvement Plan (PIP) report and summary matrix for each Natura 2000 site⁵ and information provided by NRW on Natura 2000 condition assessments (which had not yet been published at the time of writing). Each had some limitations.

The project application form covers both administrative and technical information in a detailed template with limits on the length of text allowed in specific sections. For example, 0.5 pages for the project overview and 3 pages each for the benefits to the Natura 2000 Site(s) and adopting principles of sustainable management of natural resources (SMNR).

Clearly this was a sensible and equitable approach, appropriate for projects that covered just one or two Natura 2000 sites and a limited range of actions, suited to the relatively short window for application and assessment and the restrictions of the Covid-19 pandemic. However, for the larger projects, the restriction on the length of the application meant that the experts assessing these projects simply had less information to work with.

The PIP reports and matrices, which were part of the outputs of the LIFE Natura 2000 Programme for Wales, provide detailed site-specific data on the features linked to each Natura 2000 site designation, and the issues, risks and actions associated with each of them. The PIPs, together with the recent NRW condition assessments of Natura 2000 features, formed the basis for the evaluation of 'fit' between the projects' proposed actions and the identified Natura 2000 needs.

It should be noted for both the recent NRW condition assessments and the issues and risks in the PIPs, that the date of the information on which these are based does vary considerably from feature to feature, and it is possible that some applicants or their advisers have more up-to-date information (based on their own observations) than has been used here.

The evidence used to assess the potential impact of the proposed actions on Natura 2000 condition (Q1 above) came from the ERAMMP SFS Evidence Reviews⁶, other published meta-reviews such as Conservation Evidence⁷, literature searches for management targeted at specific species and, where there was no link to published evidence, through expert opinion.

The selection of the sub-sample of 17 projects for detailed analysis was biased towards smaller stand-alone projects because these were able to provide more detail about their intended actions (within the page limit of the application form) than was possible for the multiple sub-projects in the three large applications (i.e., projects 4, 10 and 13 in Technical Annex-1).

This unavoidable bias in selecting the sub-sample may have led in the subsequent evidence assessment to more favourable findings for the smaller, stand-alone applications than for the sub-projects of the large applications.

⁵ Natura 2000 Prioritised Improvement Plans (PIPs) are prioritised, costed plans which summarise the proposed actions needed by 2020 to help improve the condition of the designated habitat and species features of the site. Actions address high and medium priority issues and risks which are preventing the features from reaching favourable condition.

⁶ <https://erammp.wales/en/r-sfs-evidence-pack>

⁷ <https://www.conservationevidence.com>

2 OVERVIEW OF ALL 34 PROJECTS

The approved projects address a wide range of Natura 2000 sites, features and habitats, from marine and island habitats to wetlands, woodlands, meadows and extensive upland pastures. There were projects targeted at seabirds, raptors, amphibians, bat and butterfly species. Some actions were aimed at addressing specific Natura 2000 site management issues (as identified in the PIP) rather than explicitly targeting a named habitat/species/feature. Such issues included diffuse pollution, over-grazing, invasive non-native species and low habitat connectivity.

The number of actions per project ranged from one to nine, and most projects were aimed at one or two Natura 2000 sites (predominantly SACs but also some SPAs).

The applicants were predominantly charities but included three public sector organisations (two of them National Park Authorities), a farm business and a grazing association. The grants applied for ranged in size from £49,000 to £425,000, and only one applicant had sought other public or private co-funding for the same project. Six of the 15 applicants intended to deliver the project in collaboration with others, often volunteers. All but one of the applicants had consulted NRW advisers on their applications.

Details of all 34 projects in the 15 applications are summarised in Technical Annex-1.

3 EVALUATION OF ACTIONS OF THE 17 PROJECTS STUDIED IN DETAIL

This chapter explores the analysis of the actions within the sub-sample of 17 projects examined in detail.

3.1 Analysis of actions funded

A total of 77 actions of 14 different types were identified across the 17 projects (Table 3.1).

As might be expected, habitat restoration or management was the most frequent action in more than half of the project analysed, typically on degraded or overgrown habitats that require conservation grazing. Actions aimed at informing and engaging the public were found in five projects in the sample, not just information and interpretation boards and signage, but educational materials, data collection, citizen science monitoring and a project to use public streaming from live cameras on an island with seabird colonies. Some actions addressed improvements or repairs to visitor infrastructure, such as paths and car parks.

A similar number of projects included studies or data gathering, many of them in preparation for detailed habitat restoration or creation, and one actively involved local farmers in gathering data to inform more sustainable management of their land. Work to repair or replace boundaries and provide livestock handling facilities was usually linked to the intention to improve or reintroduce conservation grazing and often involved fencing, but two projects had actions for boundaries which are habitats in themselves, such as dry-stone walls, cloddiau, slate fences and hedges.

Actions on water management infrastructure, such as sluices, were aimed at restoring or extending wetland habitats, and those on woodlands at habitat restoration and safety. A number of applications were for specialist vehicles and equipment to facilitate ongoing habitat management and/or access to sites.

Table 3.1 Typology of the 77 actions in the 17 projects studied in detail

Type of action	Number of actions	Number of projects
Habitat restoration or management	28	10
Information and engagement	9	5
Study or data collection	8	5
Boundaries	5	5
Visitor infrastructure	4	3
Water management infrastructure	4	3
Woodland restoration or management	4	2
Invasive species management	3	2
Machinery and/or equipment	3	2
Building repair	2	1
Livestock infrastructure	2	2
Natura 2000 biosecurity	1	1
Training and engagement	1	1
Other	3	3

The actions are listed in Technical Annex-2, by type, project, strength of the evidence for potential impact on the features of the relevant Natura 2000 sites and potential contribution to wider objectives. The 17 project reports are recorded in full as Technical Annex-5 (separate technical annex document⁸)

3.2 Evidence for potential impact on Natura 2000 sites and features

This section summarises briefly the findings of the detailed expert evaluation reports of the 17 projects that were studied in detail.

3.2.1 Targeting of projects at Natura 2000 priorities

All of the 17 projects were within or near an SAC or SPA, although the precise location and extent of the individual actions and their relationship to specific Natura 2000 features was not always clear from the application form, especially in large or complex sites.

Of the 77 actions 59 were linked to one or more Natura 2000 habitats or species, mostly in unfavourable or unknown conservation status.

The remaining 18 actions could not be linked to Natura 2000 habitats or species. These were actions associated with visitor management and information, or in some cases habitat management. All were judged to have a potentially beneficial impacts on at least one of the five other aspects assessed - additional biodiversity within the project area, landscape scale effects, the local economy, community engagement or knowledge enhancement.

3.2.2 Strength of evidence of potential impact of the actions & projects on N2K features and sites

The strength of the evidence for a beneficial impact on Natura 2000 features was a major part of the analysis of each action. Three 'traffic light' categories were used to indicate how well each action is supported by scientific evidence of its potential benefit for the Natura 2000 feature targeted. The 'traffic lights' are similar to those used for the ERAMMP SFS Evidence Review (ERAMMP Reports-1 to -10)⁹ and are defined as follows, in descending order:

- The action is well tested at multiple sites with outcomes consistent with accepted logic chain (blue)
- There is agreement in the expert community that there is an intervention logic chain, but evidence is limited or trade-offs exist (yellow)
- The logic chain is not supported or the action is impractical or there are significant trade-offs or there is negligible positive impact (crimson)

Of the 77 actions 33 met the highest evidence category (blue), 22 met the second category (yellow) and just three met the third (crimson). These assessments are summarised for all

⁸ www.erammp.wales/59 '59TA2'

⁹ www.erammp.wales/r-sfs-evidence-pack

actions (Technical Annex-2) and for all projects in the context of the Natura 2000 feature targeted (Technical Annex-3). The detailed expert evaluation report for each of the 17 projects is Technical Annex-5 (separate technical annex document).

It is important to point out that for some of the actions in the second and third categories the issue was not necessarily lack of scientific evidence, but lack of sufficient data in the project application about whether, how or where the action would be applied to specific Natura 2000 features.

It was also noted in the project reports if the supported actions were likely to have a direct impact on Natura 2000 conservation management, assuming that the investment is followed up in subsequent years by appropriate day-to-day management (use of equipment, grazing provision, wardening, etc.).

For some funded actions there was no evidence of direct impact on Natura 2000 sites, but the actions were likely to lead to positive outcomes in the future. These actions included scoping studies, species or habitat surveys, plan preparation, etc., and were frequently considered advisable or necessary to ensure appropriate management in the future. However, impacts on Natura 2000 site status will only occur if the actions supported by this grant are followed up by further investment and appropriate management.

3.2.3 Assessment of potential additional benefits

The assessment of additional benefits was based on the expert judgement of the reviewers, using the information in the project application, the ERAMMP SFS Evidence Review and experience of similar actions (e.g. Glastir) in Wales.

3.2.3.1 Additional biodiversity benefits at the site of the action

This is defined as likely benefits to species, habitats or biodiversity features which are at the site of the action but are not listed in the Prioritised Improvement Plan matrix for relevant Natura 2000 sites.

This additional benefit was not identified in the brief for this evaluation, but during the course of the study it was apparent that a number of interventions could have benefits for other biodiversity on the Natura 2000 site, although these habitats and species might not be listed as site features. Of the 17 projects 12 were assessed as having such benefits for one or more of their actions.

3.2.3.2 Landscape scale benefits

This covers potential benefits to biodiversity or ecosystem services occurring at scales larger than the application area. It includes improvements to the diversity, extent, connectivity, condition and adaptability of ecosystems (DECCA; ecosystem resilience framework). For example, increased landscape-scale connectivity of habitats within and outside of Natura 2000 sites; improved water quality within a catchment. All except one of the projects had potential landscape scale benefits for one or more of their actions.

3.2.3.3 Benefits to the local economy

This is defined as economic benefits to those individuals, businesses, land managers and contractors within or close to the application area. Such benefits were evident in 13 of the projects, particularly in relation to the use of local contractors for habitat restoration, boundary repair etc.

3.2.3.4 Community engagement

This covers increased public participation, awareness and enjoyment of environmental, historic or cultural features in the application area. It includes actions likely to contribute

towards well-being goals including promoting health and equality of access. Such benefits were evident in 13 of the projects, often linked to use of volunteers for several types of actions, educational and outreach efforts and engagement with stakeholders, including other land users. However, in a few cases the project assessment noted that the purchase of specialist habitat management machinery might reduce the need for hand labour by contractors or volunteers.

3.2.3.5 Knowledge enhancement

This category covers investment in expertise, training and knowledge about biodiversity and ecosystem services relating to the targeted Natura 2000 site or the wider landscape. Such benefits were evident in just under half the projects, mainly those that involved studies and data collection actions.

3.2.4 Metrics that could be used by scheme managers to monitor impacts

Applicants were asked to identify simple metrics that could be used to monitor the impact of their actions. Not all applicants provided a clear response, and in many cases the suggestions for metrics involved monitoring outputs rather than the impact of the actions on biodiversity and Natura 2000 objectives.

Where appropriate the reviewers noted if such simple metrics might exist, if not proposed by the applicant. However, these metrics would typically involve site assessments over many years, as habitat improvements take effect, and require funding beyond the scope of a single grant award.

3.2.5 Potential for using open-source models to aid project evaluation

In addition to the evaluation of the project actions, the WG brief required identification of projects where predictive analysis would aid evaluation. This analysis, using expert knowledge, is restricted to the 17 projects evaluated in detail and to models already used in the ERAMMP Integrated Modelling Platform (IMP) or other models which are open source and free to use. Also highlighted are instances where relevant models have been published but where these apply to the feature outside Wales illustrating that developing a model for the target feature in Wales is likely to be possible but incurring extra cost.

The detailed analysis of modelling options for the 17 projects and the data required to run each model are summarised in Technical Annex-4. This is typically observed data that characterise the baseline state before intervention. In order to evaluate possible impacts after intervention, a scenario is then required that specifies the location and size of the change in the input variables consistent with the funded suite of actions.

It is important to note that greater realism and credibility arises when the baseline and scenario are based on observed data for each impacted location rather than on proxy data from elsewhere, or where inputs are resolved at coarse scales that average out environmental variation. An additional caveat is that the biodiversity models typically model spatial relationships between species occurrence and environmental predictors. When used in predictive mode, space therefore substitutes for time, and so population dynamics are not explicitly modelled. Outputs are therefore most often interpreted as change in habitat

suitability rather than explicit predictions of colonisation, extinction and population growth (Damgaard 2019¹⁰).

Matching IMP and available open-source models to actions from the 17 projects showed that modelling changes in plant species and vegetation was most frequently relevant (Table 3.2 and Technical Annex-4).

Since interventions typically involve vegetation management this is perhaps not surprising. Water and aquatic ecosystems were also a prominent domain for intervention. Here model availability appears to be more restricted. The bird species likely to be impacted are generally not within the terrestrial list of taxa targeted by the BTO/IMP-Birds¹¹ model while aquatic plants are not well covered by the MultiMOVE¹² plant-species niche model.

Table 1.2 List of models and applicability to project actions

Model	Focal public good	Included in the ERAMMP IMP	Num. of applicable projects [of 17 assessed]
MultiMOVE	Biodiversity (plants)	Yes	11
BTO/IMP-Birds	Biodiversity (birds)	Yes	3
FARMSCOPER ¹³	Diffuse pollution (nutrient surplus)	Yes	3
Sfarmod ¹⁴	Food production (farm profitability)	Yes	2
Great Crested Newt (NRW/ARC)	Biodiversity	No	1
RIVPACS ¹⁵ (UKECH)	Water quality	No	3
Lesser Horseshoe Bat (Forest Research)	Biodiversity (Lesser Horseshoe Bat)	No	1

In a number of cases, target species either have been the subject of past modelling or indeed have an open source model available. This applies to Great Crested Newt and Lesser Horseshoe Bat.

In addition the free RIVPACS tool provides a means of exploring potential impacts on the trophic status and macro-invertebrate diversity of freshwater ecosystems. Waterfowl and Marsh Fritillary butterfly have also been successfully modelled in the past but not specifically targeting Wales. This shows that with the appropriate training data, model development would be possible. This would incur cost in new model development.

¹⁰ Damgaard, C (2019) A critique of the space-for-time substitution practice in community ecology. *Trends in Ecology & Evolution* 34, 416-421.

¹¹ The birds modelling component of the IMP, created by BTO.

¹² https://shiny-apps.ceh.ac.uk/find_your_niche/

¹³ <https://adas.co.uk/services/farmscoper/>

¹⁴ <https://www.cranfield.ac.uk/centres/centre-for-environmental-and-agricultural-informatics/life-cycle-assessment-group>

¹⁵ <https://www.ceh.ac.uk/services/rivpacs-reference-database>

In all cases the credibility and usefulness of applying models to explore expected impacts depends on the quality of the data used to define the baseline which is then adjusted under an agreed scenario of change representing the consequence of the management action. In most cases these inputs are likely to be available in map form at high resolution, for example where habitat type and landscape features are input to the BTO/IMP-Birds model, or where a map would form the basis for eliciting other necessary data from stakeholders, for example where fertilizer application rates and baseline management are needed for FARMSCOPER.

In general where data requirements are more onerous a fall-back option is to use more coarsely resolved data, for example regional means for an ecosystem, habitat or farm type. This will incur loss of accuracy (less likely to approximate the truth on the ground) and greater uncertainty in the outputs. This follows because the input data fall short of being an adequate representation of the real variability on the ground.

At some point this is likely to mean that predictions lose their utility and indeed could risk credibility of the modelling approach. The issue is that accumulating high quality input data will come at a cost be it field survey of a minimum sufficient number of soil or vegetation samples for MultiMOVE or stakeholder engagement to build the input database for Sfarmod and FARMSCOPER.

In a number of cases positive and negative spill-over effects are noted, for example increased grazing outside the domain of the project's activities if grazing is reduced in targeted areas, also potential positive impacts on the wider economy through increased demand for land-management services. Viewing the projects and enterprises carrying out the work as connected to the wider economy and landscape is realistic.

Exploring this wider impact would require more onerous data requirements and stakeholder engagement but is a scale of operation amenable to application of the IMP platform. Relevant questions at this scale would be more about assessment and valuation of impacts across a larger range of ecosystem services at a larger spatial scale and the impact of funding on local economic and ecological sustainability and resilience. It would undoubtedly also be a strong test of the ability of IMP models to operate *together* at relatively fine resolution and yield plausible and therefore useful predictions.

3.3 Discussion

The range of projects, objectives and actions in the 17 applications reviewed in detail here is impressive, both in variety of objectives, scope and in some cases, innovation and ambition. This is especially true given that the grant award was a completely new scheme, launched at a time when most site managers were required to comply with a range of restrictions due to the Covid-19 pandemic.

Many applications showed attributes associated with effective evaluation and, in some cases, strong links to scientific evidence of potential biodiversity benefits. These attributes included, but were not limited to:

- A clear case for intervention, with reference to the current condition and threats, and especially to the PIP for the relevant Natura 2000 site.
- Justification of the need for the specific investment, with clear details about the location, extent and type of actions to be undertaken, and how these fit into current and longer-term plans for the site.

- Clear delineation of each action and its expected outcomes, both for Natura 2000 features and for other potential benefits (additional biodiversity, landscape scale, local economy, community engagement and knowledge enhancement).
- Explanation of how the expected outcomes from the investment would be secured beyond the end of the 6-month period of implementation.

Not all of the projects specifically addressed N2K key features and priorities. However, those that did not had potential benefits, for additional biodiversity, or at landscape scale, or for the local economy, community engagement and knowledge enhancement - often with good supporting evidence. The inclusion of actions which addressed visitor management and information is also laudable, given the significance of many sites as tourist destinations and their value to local communities as places to enjoy the natural environment.

The evaluation team experienced difficulties in assessing some of the projects, for a number of reasons. Designed as a one-off grant application, within a single year, it was not always clear where the grant-aided investment fitted within the overall objective of the applicant for management of the Natura 2000 site.

It was often not possible to assess the spatial scale of an intervention, partly because several applicants failed to identify this. In particular, current management at many sites was not described in detail, so the strength of the case for changes in management was not always clear. Similarly, there was not always a full description of the current status of the target habitats or species. It is possible/probable that the conditions of some Natura 2000 features have changed since the most recent condition assessment by NRW/CCW, and as site managers the applicants (and their NRW local advisers) might be aware of this, even if it has not been recorded formally.

To achieve the full effect of biodiversity investments and ensure the longevity of improvements in habitat or species condition, it is often necessary to reintroduce appropriate management after the grant-aided work. Not all applicants explained whether resources were available continue site management or monitoring in the future. However, many applicants are experienced site managers and some clearly indicated the need and intention for ongoing management.

The type and depth of community engagement actions varied, ranging from discussions with stakeholders to the provision of educational resources and the active involvement of volunteers and farmers in project implementation and/or data gathering.

Applications for capital purchases of machinery and equipment were not always explained in the context of specific ecological or environmental benefits that were likely to result, if any. In some cases, the acquisition of specialist machinery would enable regular, timely management of habitats (e.g., wetlands where a tractor could not be used, or as an alternative to using contractors). In other cases the additionality of the investment was unclear, for example where the grant was used to replace existing, old machinery and equipment or fencing in poor repair.

4 RECOMMENDATIONS

Make clearer the distinction between beneficial outcomes for Natura 2000 features and wider environmental benefits

Improving the condition or status of key Natura 2000 habitats and species (within or beyond designated Natura 2000 sites) and achieving wider, sustainable environmental and socio-economic benefits are both critical outcomes, but may require different types of investment and action. This distinction could be made more transparent by:

- Distinguishing between the two types of outcome, in the guidance and application process, would allow applicants to develop and clearly communicate projects that deliver benefits for Natura 2000 priority features as well as wider environmental benefits.
- Clearly communicating to all potential applicants and their advisers the importance of actions related to Natura 2000 priority features in light of the current condition and threats to these habitats and species, and make information on the condition and needs of Natura 2000 priority features readily accessible throughout the application process. Much of this information is summarised in the PIP (matrix) and the Lle database but this could be supplemented by Natura 2000 site maps which could be downloaded and used by applicants to mark up the location and extent of the proposed investment.

Making this information more readily accessible to applicants and their advisers throughout the application process could contribute to the design of effective interventions.

A. Recognise the need for evidence of baseline condition

Evidence of baseline condition before the action is implemented is essential to provide a benchmark against which to verify implementation on site and, importantly, to evaluate subsequent changes in the condition or status of targeted features. For example:

- Incentivise applicants to provide evidence of the baseline condition of the target of the intervention, including existing biological monitoring data, and geotagged, dated, photographic evidence where appropriate.
- Where appropriate, make provision to accept evidence that supplements or contradicts the WG/NRW prioritisation of Natura 2000 sites and features, for example where applicants have access to additional or more up to date information than that which is available to WG/NRW.
- With a sufficiently clear evidence base, consideration could also be given to applications with the intention of improving the ecological condition and resilience of landscapes surrounding Natura 2000 sites.

B. Enable and foster long-term planning by site managers

Improving the condition of Natura 2000 sites, habitats and species in Wales will necessarily take some time, because of the inherent pace of biological change but also for reasons linked to budgetary and technical capacity (of both government and land managers) and, in some cases, the availability of skilled staff. This points to the need for long-term planning by both site managers and funding bodies to programme the necessary investment and secure the long-term maintenance and conservation management of Natura 2000 sites, habitats and species. This could be enabled by:

- Inviting applications from individual land managers or groups of contiguous land holders within or near a Natura 2000 site for a 5-year programme of investment and subsequent management, supported by a plan prepared by a qualified adviser and approved by NRW (cf. UK government forestry grants based on a forest management plan);
- Supporting studies as a precursor to preparation of a Natura 2000 investment and management plan;
- Providing up-front funding for the preparation of detailed, site specific plans targeted at identified Natura 2000 sites or features, at the level of individual or groups of holdings, in advance of the grant application for a 5-year investment programme;
- Require successful applicants to provide baseline data before implementation starts and require data collection by the land manager on condition of the targeted habitats/species during the 5-year investment programme (and consider a result-based bonus payment after 5 and 10 years);
- Require a commitment (linked to the investment grant) to appropriate ongoing land management needed to achieve improved conservation status (where appropriate this could be funded by multi-annual management contracts, similar to higher-level agri-environment payments); and
- Set-aside a proportion of the budget to fund a 5-year investment programme based on such plans.

C. Ensure both environmental and financial additionality of the Natura 2000 grants

Make clearer the distinction between new investment required for habitat/species restoration (e.g., where land management has been abandoned and new grazing/livestock infrastructure is required) and routine investment in the maintenance/replacement of existing infrastructure and equipment (e.g., fencing and vehicles that need replacing every few years).

Consider modifications to application process and forms

The application and selection process could be fine-tuned to focus applications more effectively on Natura 2000 priorities, without constraining the opportunities for innovative approaches to investing in the Natura 2000 sites to achieve and maintain favourable conservation status. For example:

- Allow a longer application window, and implementation over a whole year (not just in the winter), subject to necessary safeguards to avoid disturbance during breeding/flowering seasons.
- Require all applications to specify clearly and explicitly what actions will occur at which site and the anticipated Natura 2000 or other benefits in each case
- Require details of methods/metrics to be used to record baseline condition of habitats and/or species before implementation and to evaluate impact on site condition over specified time intervals after implementation is completed (accompanied by geotagged, dated photographic evidence)
- Require large projects which involve distinct groups of actions, in different locations, to be clearly broken down into separate sub-projects, allowing extra space in the form for project details.
- Separate the site-specific Natura 2000 investment part of the application form from the administrative details about the applicant, and consider separate page allowances for the administrative part and the description and justification of proposed actions. (This would simplify applications from one organisation for multiple projects, as only one administrative section would be needed).
- Require the risk assessment to cover separately the risk of non-delivery, and the environmental risks of the proposed investment.
- Given that many grazed upland (and some lowland) Natura 2000 sites are common land, provide facilitation/advisory support to encourage groups of farmers or grazing associations to apply
- Consider how the weighting of different elements of the application (and possibly grant rates) can be fine-tuned to favour applications that clearly address Natura 2000 priorities, but also encourage other aspects that could foster positive attitudes to Natura 2000 sites among the local population (e.g., local procurement of labour/materials; involvement of local people of all ages as volunteers (e.g., through management work, data collection, citizen science).
- Redesign the table currently in section 4.1 of the application form to make it clear what spatial information is required, and level the playing field across different types of applicants, by making it easier for them to identify and distinguish between the benefits for Natura 2000 features and the wider environmental benefits. For example, under the following headings in a redesigned table:
 - i. Action and specific location
 - ii. Scale of delivery (what will this action involve, and in what quantity?)
 - iii. Benefits to N2K features (with reference to condition, and issues/risks, of priority N2K features)
 - iv. Wider environmental benefits (including climate change mitigation, SMNR, resilience, socio-economic benefits)

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