**Specification: 4 x Citizen Science local Pilots**

The Authority is Natural England. The Authority’s priorities are to secure a healthy natural environment; a sustainable, low-carbon economy; a thriving farming sector and a sustainable, healthy and secure food supply. Further information about the Authority can be found at: <https://www.gov.uk/government/organisations/natural-england>

**About Natural England**

Natural England (NE) is the government’s advisor on the natural environment. We provide practical advice, grounded in science, on how best to safeguard England’s natural wealth for the benefit of everyone. Our remit is to ensure sustainable stewardship of the land and sea so that people and nature can thrive. It is our responsibility to see that England’s rich natural environment can adapt and survive intact for future generations to enjoy.

**Project Background**

**Natural Capital and Ecosystems Assessment**

The Natural Capital and Ecosystems Assessment (NCEA) programme will transform and innovate the way our evidence-base is captured, analysed and brought together to ensure science meets the needs of policy / decision makers to embed a natural capital approach, allowing us to leave our environment in a better state than we found it.

The NCEA will provide a holistic, accurate and robust set of evidence and data for Defra to make informed policy decisions about the state of our natural capital assets in high profile policy areas and lead to better outcomes for the environment. It will also identify innovative and transformative ways of collecting, analysing and distributing the data.

Better data and evidence are required so that government and society can:

* Understand our natural capital, how and why it is changing.
* Tackle pressures on the environment and the drivers of change.
* Take biodiversity and natural capital into account in decision making.
* Target action where it will be most effective.
* Evaluate policies and interventions to improve their effectiveness.

**NCEA Citizen Science**

Citizen Science (CS) is one of the cross-cutting tools/approaches for collecting these data, alongside professional survey, and remote earth observation techniques. Citizen Science generated data is already essential to environmental policy, forming the majority of current biodiversity monitoring in the UK. It complements and augments standard scientific approaches. Critically it has the potential to contribute even more significant amounts of useful data in places and of a richness that cannot be achieved by other means. The approach also provides an important means for members of the public to connect with nature and the environment, further develop and deepen their appreciation and understanding of its importance and benefit to us.

NCEA CS partners are Defra, Natural England, JNCC, Forest Research, Kew and the Environment Agency

**Vision / Ambition**

Defra group would like to help support and further enhance the role and impact of public studies of nature and the environment (environmental citizen science) across England. Whilst there are many good examples of environmental citizen science practice and use, most are highly specialised with a narrow subject or geographic focus. We would like public study to become a more recognised, respected, and practical option for Defra group programmes to collect data and evidence to help us support nature and its recovery.

1. Review the focus of investment - shift focus of investment more towards enabling and standardising public studies of nature and the environment to enhance their benefit. Expand from a surveillance approach to Monitoring – expand from using citizen science to detect change to help determine the drivers of change – i.e., determine the impact of pressures and success of interventions.
2. Make citizen science a more feasible and practical environmental survey option for government programmes and projects – citizen science requires a very different approach to that taken when contracting professional surveyors.

On behalf of the Defra Group, Natural England aims to explore how we might help an inclusive community of national and local stakeholders and interested parties across England to better coordinate our efforts, standardise approaches, and engage public participation.

**Context and rationale**

Citizen science provides an important source of environmental evidence informing government policy, programmes, and projects. However, the full value, impact, and potential of citizen science for government, society, communities, and individuals, is limited by several factors, including:

* Insufficient guidance on the form, format and subject of study that enable effective detection, measurement, record making and data integration.
* A limited amount and lack of awareness of opportunities, capacity, and capability of people to participate.
* The extent and coordination of broad, strategic sponsorship, guidance, and support of volunteers.

Government investment in and use of citizen science data is already extensive and has been effectively developed to suit specific purposes but there is great potential to increase its reach, utility and value. Public sector policy, programme and project use has focussed more on the acquisition and application of existing/historic data (that is already collected) than the design, support and collection of new/future data (survey effort). As a result:

* Citizen science presents a more involved method of data collection than contracted professionals or staff led survey and these approaches are considered exclusive of each other.
* Use of citizen science data is weighted towards surveillance (detecting general change and trends) as opposed to monitoring impacts (pressures and interventions as drivers of change);
* Data mobilisation issues that impede public sector and open reuse are not identified or addressed early enough in the pathway from collection to end use;
* Environmental citizen science investment, projects and initiatives remain disparate limiting their collective value, efficiency and overall benefit.

Wider consultation with national and local stakeholders has additionally identified some key observations:

* There is a need for a well-resourced, coordinated CS network. This would increase communication, share and coordinate effort, increase resource and learning, improve data sharing, facilitate sharing of tool for citizens and reduce duplication in effort and ‘reinventing the wheel’.
* Many organisations/individuals are short on time and resource.
* Citizen scientists need to feel empowered. CS projects need to be relatable for individuals and provide regular feedback on how their data is being used, why it is important and how the local area is benefiting from their work. It is particularly important to engage with more diverse organisations, or community groups including employing people from underrepresented groups to give opportunities and facilitate increasing the diversity of people engaged.
* Co-designing would help to empower the local community and understand local priorities.
* Good data quality, data recording platforms and data completeness are essential to national and local priorities. Many tools and methods already exist and would benefit from additional support.
* Funding is needed to resource the delivery of future CS networks.

Within this context, Natural England want to investigate alternative approaches to help the wide community of performers and stakeholders address these issues and opportunities at scale across England. We would like to create the capacity to:

* Explore the current and potential future role of citizen science - opportunities to further develop and enhance the role of citizen science studies of nature and the environment across England.
* Promote cooperative monitoring: to nurture closer community collaboration in the study of nature and the environment, improving and advancing understanding of the collective role of professional, volunteer and technologically driven survey effort.
* Coordinate and combine effort and resources: convene sponsors and stakeholders at a regional, strategic operational scale to share why, what, and how we each study nature and the environment, the extent to which volunteers are involved and potential to improve and grow this.
* Better engage, enable, and guide public participants: to explore the impact of more capacity to engage, support and coordinate public participants and sponsors of practice, projects and initiatives that study and generate data on elements of nature and the environment.
* Share priorities, methods, tools, approaches, systems and especially our collective experience and lessons to better inform and evolve common guidance, standards, and resources.

We aim to refine and test the hypothesis that investment in a series of foundational roles/functions will help the community further coordinate, standardise, and engage public study of nature and the environment. We want to work with stakeholders to design and test this concept within four regions of England over the next two financial years, 23/24 and 24/25. A combination of learning from past programmes and more recent local and national consultation has informed this approach and our framing of a pilot programme. In four parallel pilots, Natural England would like to resource collaborative and representative partnerships to install staff and resources to further refine, deliver and learn from the following three roles:

1. **Convene** – to convene and explore shared interest, co-operation, co-development, and co-funding with national and local stakeholders.
2. **Coordinate** – to develop, share and advance methods and tools which help members of the public (alongside professionals) to study nature in a mutually beneficial way and which help users build confidence in the integrity and utility of the data they gather.
3. **Engage** – to secure the time, skills and media needed to engage communities, attract, enrol, and nurture members of the public to proficiently study nature and the environment and benefit from doing so.

Three complementary developments will support delivery of these roles:

1. **Direct Localised Support** – regionally-based and focused capacity, resourced and tested by these pilots, to support Citizen Science (promoting roles 1 and 3 and supporting development of 2)
2. **Community Resource Library** – provision of a central repository for resources that enable and optimise the study of nature and the environment (promoting role 2 and supporting 1 and 3)
3. **Thematic Survey Frameworks** - drawing together current community understanding and practice in the study of nature and the environment (promoting role 2 and supporting 1 and 3)

Four regional pilots will be procured on a contract basis with the aim of meaningfully testing the overall hypothesis, practical delivery models for Direct Localised Support (a) and support development of the Community Resource Library (b) and Thematic Survey Frameworks (c). It is anticipated that the collaborative partnerships will involve national and local public sector bodies and NGOs.

The pilots will provide a significant evidence base for development of a sustainable co-funded model for future support for Citizen Science across England beyond the current NCEA lifecycle. Whole programme-life evaluation of the pilots as they develop is integral to this.

The project is supported by all partners to the NCEA Citizen Science workstream, and a Strategic Sub-board with representatives from these partners and wider policy and programme interests.

**Pilot description**

The focus of this work is on enabling and facilitating coordinated, purposeful studies of nature and the environment by members of the public, that benefit participants and usefully inform and help evaluate decisions, actions and interventions. Although access to and use of existing data is important, it is not the focus of this work. Acknowledging this early will help maintain focus and avoid distractions.

The four pilots will be procured under separate contracts with geographical coverage mapping to [Natural England regions](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/898222/Natural-England-offices.pdf):

* Northumbria
* West Midlands
* Norfolk & Suffolk
* Wessex

Further detail on boundaries can be found using the [Defra Magic mapping and information tool](https://magic.defra.gov.uk/).

Pilots will provide active resource within regions – skills and experience through staffing and other support as appropriate - leveraging local and national stakeholder input and support progress towards achieving the following:

* Testing the value of the three roles:
  + Convene – activity that brings together local stakeholders to identify shared interests and priorities, and promote co-operation
  + Coordinate – promote shared resources, consult locally and enable all to contribute to their development
  + Engage – support appropriate engagement on behalf of local stakeholders
* Positive contribution alongside professionals and specialists to regionally specific development focus areas, including Landscape Scale Nature Recovery Projects (LNRPs), Local nature Recovery Strategies (LNRS) and other stakeholder identified priorities.
* Support development of the Community Resource Library through consultation, testing and feedback.
* Contribution to development of a sustainable model for future Direct Localised Support – engaging community input; assessing successes and limitations; contributing to programme evaluation.

A set-up phase during ’23/’24 Q3 and Q4 will focus on establishing local relationships and priorities and building systems and infrastructure. An operating phase will see progress towards the project aims during the year ‘24/’25. Defined evaluation activities will be carried out throughout reflecting the different project phases.

**Expected activities**

The following core activities will be expected of pilot delivery partners(hips)

Delivery

* Convene a Local Advisory Group to contribute to local pilot development and contribute to defining priorities: the why, what and by whom of Citizen science locally and how it integrates nationally.
* Identify local stakeholders, including for example, environmental NGOs; local government interests; locally operating ALBs (Natural England Environment Agency, Marine Management Organisation etc.); community bodies; health and wellbeing interests; Local Environmental Record Centres etc.
* Convene a Local Citizen Science Stakeholder Forum enabling representation from identified local stakeholders and contributing to defining priorities: the why, what and by whom of Citizen science locally and how it integrates nationally.
* Support the stakeholder forum in identifying local priorities for Citizen Science implementation: e.g., engagement/recruitment/training; project design and set-up support; specific projects or development areas etc.
* Identify and deliver locally prioritised support actions
* Facilitating direct support for specific NCEA identified local initiatives e.g., LNRPs, LNRS, protected sites monitoring
* Facilitating local engagement with and contribution to defined nationally significant initiatives e.g. ecological mapping.

Programme development

* Contribute to NE facilitated monthly learning and sharing workshops with other pilot delivery partners(hips)
* Provide input as required to pilot programme evaluation. Independent evaluation is carried out on NE’s behalf by ICF. Specific requirements will be defined prior to contracting but likely to include information gathering from stakeholders and contribution to ICF-led structured workshops during three evaluation focus periods.
* Consultation activities with local stakeholders to support Community Resource Library and Thematic Survey Framework development.

Administrative

* Convene a contract inception meeting with NE programme staff within two weeks of contract confirmation
* Attend and contribute to NE facilitated pilot set-up workshop with other local pilot delivery partners(hips)
* Attend fortnightly progress meetings (online or face-to-face on site) with NE programme staff
* Quarterly and final reporting to a defined (light-touch) format (see final delivery dates below)
* Management of robust process e.g., GDPR
* Responsibility for contract, staffing and day-to-day legal matters

**Nature of partnerships**

With the importance of geographical range and broad extent of organisational skills and experience we welcome and encourage the formation of creative partnerships/consortia to deliver pilots in each of the target areas. It is anticipated that consortia may include national and local public sector bodies and NGOs.

Demonstratable experience in the following will be valuable:

* Citizen Science delivery in an environmental context
* Environmental recording landscape locally/nationally
* Volunteer management
* Local/regional understanding, reach and relevance
* People engagement, especially hard-to-reach or under-represented groups and with a proactive approach to equality, diversity and inclusion
* Project management

The contract will be held with a named lead partner. Formal agreements between partners are not required at tender or contract signing stage but appropriate Memorandum of Agreement-type arrangements between partners will be expected to be in place within c.three months of contract signing to ensure partnership stability.

**Natural England Support**

Local pilots will be established under contracts, primarily to ensure that Natural England, on behalf of NCEA, can ensure the overall programme development needs are met. Natural England is committed to supporting this development and will ensure the following are available to pilot delivery partners(hips)

* Access to a named officer responsible for the programme for any ongoing queries
* Close liaison and support for pilot development
* Facilitation of a learning and sharing networking between the four pilots
* Access to initial national and local stakeholder research carried out as part of the local pilot model development
* Access to background documentation and reports
* Provision of Community Resource Library materials
* Direct input by arrangement into Local Advisory Group and Local Stakeholder Forum meetings

**Project timescales**

**Table 1**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NCEA (NE) activity |  |  | Pilot delivery partners(hip) |  |  | Pilot activity |  |  | Evaluation activity (ICF) |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Activity** | **YEAR 1: ‘23/’24** | | | | | | | | | | | |
| **Q1** | | | **Q2** | | | **Q3** | | | **Q4** | | |
| Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar |
| Local pilot set up phase (Pilots) |  |  |  |  |  |  |  |  |  |  |  |  |
| Natural England Support |  |  |  |  |  |  |  |  |  |  |  |  |
| Evaluation activities |  |  |  |  |  |  |  |  |  |  |  |  |
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| Inception meeting and set-up workshop |  |  |  |  |  |  |  |  |  |  |  |  |
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| Fortnightly progress meetings |  |  |  |  |  |  |  |  |  |  |  |  |
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| Monthly network workshops |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Advisory group operating |  |  |  |  |  |  |  |  |  |  |  |  |
| Stakeholder forum operating |  |  |  |  |  |  |  |  |  |  |  |  |
| Quarterly report |  |  |  |  |  |  |  |  |  |  |  |  |
| Community Resource consultation |  |  |  |  |  |  |  |  |  |  |  |  |
| Survey Framework consultation |  |  |  |  |  |  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Activity** | **YEAR 2: ‘24/’25 – subject to budget approval\*** | | | | | | | | | | | |
| **Q1** | | | **Q2** | | | **Q3** | | | **Q4** | | |
| Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar |
| Local pilot operation phase (Pilots) |  |  |  |  |  |  |  |  |  |  |  |  |
| Natural England Support |  |  |  |  |  |  |  |  |  |  |  |  |
| Evaluation activities |  |  |  |  |  |  |  |  |  |  |  |  |
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| Fortnightly progress meetings |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Monthly network workshops |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Advisory group operating |  |  |  |  |  |  |  |  |  |  |  |  |
| Stakeholder forum operating |  |  |  |  |  |  |  |  |  |  |  |  |
| Quarterly report |  |  |  |  |  |  |  |  |  |  |  |  |
| Final report |  |  |  |  |  |  |  |  |  |  |  |  |
| Community Resource consultation |  |  |  |  |  |  |  |  |  |  |  |  |
| Survey Framework consultation |  |  |  |  |  |  |  |  |  |  |  |  |
| Support for specific initiatives |  |  |  |  |  |  |  |  |  |  |  |  |

\*These activities have a dependency on final budget approval and will be subject to Options clauses

**Project Milestones**

**Table 2**

|  |  |  |
| --- | --- | --- |
|  | Milestone | Date |
| M1 | Contracts signed; initiation meetings held | 13/11/2023 |
| M2 | Infrastructure established: staff in place and up to speed; Advisory Group established; Stakeholder Group established; Partnership MoUs signed and copies to NE; set-up phase development actions underway; period evaluation actions complete; D1 quarterly report accepted | 20/12/2023 |
| M3 | Set-up phase complete; required development activities complete; period evaluation actions complete; D2 quarterly report accepted | 27/03/2024 |
| M4 | Operational phase initiated; required development activities complete; period evaluation actions complete; D3 quarterly report accepted | 26/06/2024 |
| M5 | Required development activities complete; period evaluation actions complete; D4 quarterly report accepted | 25/09/2024 |
| M6 | Required development activities complete; period evaluation actions complete; D5 quarterly report accepted | 18/12/2024 |
| M7 | Required development activities complete; period evaluation actions complete; D6 quarterly report accepted | 12/03/2025 |

**Project Deliverables**

**Table 3**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Deliverable | Final delivery date (end) | Payment from | % of total |
| D1 | Quarterly report 1 | 20/12/2023 | 31/12/2023 | 16 |
| D2 | Quarterly report 2 | 27/03/2024 | 31/03/2024 | 16 |
| D3 | Quarterly report 3 | 26/06/2024 | 30/06/2024 | 16 |
| D4 | Quarterly report 4 | 25/09/2024 | 30/09/2024 | 16 |
| D5 | Quarterly report 5 | 18/12/2024 | 31/12/2024 | 16 |
| D6 | Final report | 12/03/2025 | 15/03/2025 | 20 |

Reports will follow a defined format reflecting different project phases in the project lifecycle.

**Key Performance Indicators**

**Table 4**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **KPI Title** | **Success Criteria** | **Reporting frequency** | **Delivery date** | **Reporting** |
| Deliverable – Project Progress Reports | Successful and timely competition of Project Progress reports | Quarterly | As described in Table 3 Project deliverables and payments | Quarterly report template |
| Outcome – Convene and explore shared interest, co-operation and co-development with national stakeholders. | Stakeholder mapping complete. | Quarterly | By 31/01/2024 | Quarterly report template |
| Local Citizen Science Stakeholder Forum established. |  |
| Local Advisory Group established. |  |
| Outcome – Coordinate: to develop and share methods and tools which help members of the public study nature in a mutually beneficial way and which help users build confidence in the integrity and utility of the data they gather. | Shared interests and priorities between stakeholders identified and action agreed.    Action plan developed. | Quarterly | 31/03/2024 | Quarterly report template |
| Action plan delivered and learning captured | Quarterly | 31/03/2025 | Quarterly report template |
| Outcome – Engage: secure the time, skills and media needed to engage communities, attract, enrol, and nurture members of the public to proficiently study nature and the environment and benefit from doing so. | Engagement log complete | Monthly | Continuous | Quarterly report template |
| Attendance and contribution to NE facilitated monthly learning and sharing workshops with other pilot delivery partners(hips) | Meeting minutes | Monthly | Continuous | Quarterly report template |

**Indicative scale**

Resourcing should be appropriate for local support need but we anticipate that each pilot will support two FTE and additional financial or other resource to support locally identified priorities.

**Contract Management**

Natural England will nominate a Project Officer who will manage the project and serve as the principle point of contact from Natural England. They will be responsible for the day-to-day management of this contract and will coordinate regular meetings to review the work and ensure it meets the projects aims and objectives. As outlined above, meetings will be incorporated into the programme of works to discuss progress and facilitate feedback provision. Meetings will be organised by the successful Tenderer.

The contractor will be expected to appoint a Project Manager who will act as the principle point of contact and will be responsible for the day-to-day management of the project. The contractor will be required to regularly update the Natural England Project Officer on project progress through fortnightly meetings (online or face-to-face) arranged by the contractor, and when there are any significant issues.