

---

# **DPR9S2\1003**

## **Understanding Ramsar wetland dynamics for marine conservation and environmental resilience**

The project will provide evidence of the dynamic resilience of Caicos Islands' wetlands, and how they support biodiversity, coastal protection, and natural capital.

It will evaluate historic change, show how future climate could impact the wetlands, and provide evidence to review the Ramsar extent. It will develop a monitoring framework and dashboard to view project and ongoing monitoring data, build technical and scientific capacity in local staff, in order to help sustain wetland management in the long term

---

## Section 1 - Contact Details

---

### PRIMARY APPLICANT DETAILS

---

Title Mr  
Name Steve  
Surname Keyworth  
Website (Work) www.envsys.co.uk  
Tel (Work) [REDACTED]  
Email (Work) [REDACTED]  
Address [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

### CONTACT DETAILS

---

Title Dr  
Name Katie  
Surname Medcalf  
Organisation Environment Systems Ltd  
Tel (Work) [REDACTED]  
Email [REDACTED]  
Address [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

### GMS ORGANISATION

---

Type	Organisation
Name	Environment Systems Ltd
Phone (Work)	[REDACTED]
Email (Work)	[REDACTED]
Website	[REDACTED]
Address	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]

---

## Section 2 - Title, Dates & Budget Summary

---

### Q3a. Project title

Understanding Ramsar wetland dynamics for marine conservation and environmental resilience

### Q3b. What was your Stage 1 reference number? e.g. DPR9S1\10008

DPR9S1\1042

### Q4. UKOT(s)

Which eligible UK Overseas Territory(ies) will your project be working in?

Turks & Caicos Islands (TCI)

\* if you have indicated a territory group with an asterisk, please give detail on which territories you are working on here:

*No Response*

Q4b. In addition to the UKOTs you have indicated, will your project directly benefit any other Territories or country(ies)?

No

### Q5. Project dates

**Start date:**

01 July 2021

**End date:**

30 June 2023

**Duration (e.g. 2 years, 3 months):**

2 years

### Q6. Budget summary

Year:	2021/22	2022/23	2023/24	2024/25	Total request
Darwin funding request (Apr - Mar)	£118,468.00	£105,806.00	£27,533.00	£0.00	<b>£</b> 251,807.00

Q6a. Do you have proposed matched funding arrangements?

Yes

What matched funding arrangements are proposed?

1. Environment Systems Satellite Data Services <https://data.envsys.co.uk/> for national Sentinel-based analytics.
2. JNCC will provide 'In kind' staff time across the two years.
3. DECRA will provide 'In kind' staff time across the two years with vehicle and boat use, office space and some field equipment.
4. Marine Conservation Society will provide 'In kind' staff time across the two years

The total value of this match funding is £ [REDACTED] See Q23 for full breakdown.

**Q6b. Proposed matched funding as % of total project cost** ■  
(total cost is the Darwin request plus other funding required to run the project).

---

## Section 3 - Project Summary and Conventions

---

### Q7. Summary of Project

**Please provide a brief summary of your project, its aims, and the key activities you plan to undertake. Please note that if you are successful, this working may be used by Defra in communications e.g. as a short description of the project on [GOV.UK](https://www.gov.uk).**

**Please write this summary for a non-technical audience.**

The project will provide evidence of the dynamic resilience of Caicos Islands' wetlands, and how they support biodiversity, coastal protection, and natural capital.

It will evaluate historic change, show how future climate could impact the wetlands, and provide evidence to review the Ramsar extent. It will develop a monitoring framework and dashboard to view project and ongoing monitoring data, build technical and scientific capacity in local staff, in order to help sustain wetland management in the long term

### Q8. Biodiversity Conventions, Treaties and Agreements

**Please detail how your project will contribute to the aims of the agreement(s) your project is targeting. What key OT Government priorities and themes will it address? You should refer to Articles or Programmes of Work here. You should also consider local, territory specific agreements and action plans here.**

This project focuses on the important multiple values of, and potential changes to, the Ramsar site, including considering the impact of climate change issues affecting TCI. It addresses the Darwin Plus priorities:

- Conservation, restoration, and wise use of wetlands. By establishing how TCI wetlands are functioning in a changing climate we will help ensure better management and improved sustainable use across the range of habitat types/ecosystems into the future, including ecosystem services such as fisheries, ecotourism, coastal protection and carbon storage.
- Conservation and effective management of coral reef, seagrass-meadows and mangrove forest ecosystems. In addition, by raising awareness of these wetlands' role in coastal protection we will help respond to, and mitigate against, the impacts of natural disasters in TCI.

The project directly contributes to the Ramsar Convention in that the project seeks to provide robust scientific evidence for the management of the TCI site and establishing the evidence base for potentially extending the Ramsar site into East Caicos.

It will help address commitments made by UK Government in various Ramsar Resolutions, including: XI.14 Climate change and wetlands: implications for the Ramsar Convention on Wetland, and XIII.16

Sustainable urbanization, climate change and wetlands, which, of particular relevance to this project urges “greater international and national cooperation, technical assistance and capacity building to address any negative effects resulting from activities that negatively affect urban and peri-urban wetlands, notably, surrounding urban development, climate change, effluents, pollution and fragmentation of ecosystems”

This project will also support TCI’s obligations to Ramsar Resolution XIII.24 The enhanced conservation of coastal marine turtle habitats and the designation of key areas as Ramsar Sites.

It will help TCI further meet commitments set out in the three pillars of the Convention:

- work towards the wise use of all their wetlands;
- designate suitable wetlands for the list of Wetlands of International Importance (the “Ramsar List”) and ensure their effective management;
- cooperate internationally on transboundary wetlands, shared wetland systems and shared species.

In terms of local initiatives, the project will help TCI further the objectives of its Environment Strategy and contribute to meeting the Convention’s mission “the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world”.

This project will help the Turks and Caicos Islands Government meet Guiding Principles and Commitments of the 2001 TCI Environment Charter including:

Using natural resources wisely, contributing towards the protection and improvement of the global environment; safeguarding and restoring native species, habitats and landscape features, and studying and celebrating our environmental heritage as a treasure to share with our children. This includes a commitment to ensure the protection and restoration of key habitats, species and landscape features through legislation and appropriate management structures and mechanisms, including a protected areas policy and abide by the principles set out in the Rio Declaration on Environment and Development and work towards meeting International Development Targets on the environment.

Further references are provided in supplementary document at Q13.

## Section 4 - Lead Organisation Summary

---

### Q9. Lead organisation summary

**Has your organisation been awarded a Darwin Initiative award before (for the purposes of this question, being a partner does not count)?**

Yes

**If yes, please provide details of the most recent awards (up to 6 examples).**

Reference No	Project Leader	Title
DPLUS081	Dr Katie Medcalf	Mapping for evidence-based policy, recovery and environmental resilience
<i>No Response</i>	<i>No Response</i>	<i>No Response</i>
<i>No Response</i>	<i>No Response</i>	<i>No Response</i>

No Response

No Response

No Response

No Response

No Response

No Response

No Response





No Response

No Response

**Have you provided the requested signed audited/independently examined accounts? If you select "yes" you will be able to upload these. Note that this is not required from Government Agencies.**

Yes

**Please attach the requested signed audited/independently examined accounts.**

 Environment Systems Merged Accounts 2019  
2020  
 01/02/2021  
 11:26:19  
 pdf 1.7 MB

## Section 5 - Project Partners

---

### Q10. Project Partners

**Please list all the partners involved (including the Lead Organisation) and explain their roles and responsibilities in the project. Describe the extent of their involvement at all stages, including project development.**

**This section should illustrate the capacity of partners to be involved in the project. Please provide Letters of Support for the Lead Organisation and each partner or explain why this has not been included.**

**N.B: There is a file upload button at the bottom of this page for the upload of a cover letter (if applicable) and all letters of support.**

**Lead Organisation name:**

Environment Systems Ltd

**Website address:**

www.envsys.co.uk

**Details (including roles and responsibilities and capacity to engage with the project):**

Environment Systems is an established environmental and agricultural data company, providing trusted evidence and insight to governments and industry across the world since 2003.

Environment Systems has expert staff highly skilled and fully available to meet the requirements of this project:

Katie Medcalf is Project Director; an expert environmental scientist with a strong background in biodiversity mapping, ecosystem services and remote sensing. She has worked on similar projects in OT's in the past.

Samuel Pike is a remote sensing consultant and will be Project Manager. He has expertise in the techniques to be used in this project for both the terrestrial and shallow water marine environment. He has worked on OT projects involving TCI.

Elsa-Kristin Naumann is an Environmental GIS Consultant with a specialism in marine ecology and has extensive experience in species and habitat data collation, data analysis and reporting.

Tomos Nolan is an Environmental GIS Analyst with three years' experience in satellite imagery and aerial photo interpretation, digitisation, spatial and statistical analysis.

Dr. Suzana Barreto is a Data Scientist with a specialism in data analytics, artificial intelligence and associated software development.

We confirm we have additional personnel available if required, to ensure the successful delivery of the work.

---

**Have you included a Letter of Support from this organisation?**  Yes

---

**Have you provided a cover letter to address your Stage 1 feedback?**  Yes

---

**Do you have partners involved in the Project?**

Yes

**1. Partner Name:** The Turks and Caicos Island Government Department of Environment and Coastal Resources (DECR)

---

**Website address:** <https://www.gov.tc/decr/>

---

**Details (including roles and responsibilities and capacity to engage with the project):**

DECR is mandated “to promote protection and sustainable utilization of natural resources throughout the TCI”. DECR have put together a team, across the islands, consisting of Assistant Directors, Scientific Officers, Environmental Officers and Conservation Officers; leading the field work and being the key project beneficiary. The project will be overseen by the Director.

The TCI team will:

Employ a new member of staff as a wetland officer

- Lead the collection of ground truth data for the wetlands in order to validate maps,
- Assist in the production of the a monitoring plan, to ensure it meets all the Department’s and Government’s needs and those of stakeholders,
- Support M&E data collection,
- Lead the activities to raise awareness on island including:
- Promoting the monitoring web interface
- Establishing new work practices to use the information from the new data,
- Understand the data and techniques so that others can be trained and develop on island capability.

Bryan Manco, the DECR lead, has over twenty years experience in terrestrial ecological and biodiversity studies, terrestrial biodiversity cataloguing, plant identification, invasive species impact and ecosystem restoration, with much of his work focused on the TCI Ramsar site.

---

**Have you included a Letter of Support from this organisation?**  Yes

---

**Do you have more than one partner involved in the Project?**

Yes

**2. Partner Name:** Joint Nature Conservation Committee (JNCC)

---

**Website address:** <https://jncc.gov.uk/>

---



**Details (including roles and responsibilities and capacity to engage with the project):**

JNCC advises the UK Government and devolved administrations on UK-wide and international nature conservation.

We have been working with the UK's Overseas Territories for over 20 years, providing technical assistance to support their biodiversity and wider environmental management strategies.

Our skills and knowledge will specifically help inform this project in the following ways:

i) Using existing experience of providing technical assistance for the development of the TCI Government's Environment Strategy, help ensure project outputs are aligned and integrated with the Strategy, in support of building more-resilient ecosystems for nature and for people in TCI.

ii) Using in-house technical expertise to quality assure the monitoring techniques identified and to provide technical assistance in the climate modelling.

iii) Enabling the project to be developed alongside an understanding of the global drivers and evidence of change from climate, urbanisation etc.

Stephen Grady is a Senior International Biodiversity Advisor and will provide technical expertise, providing Ramsar advice, evidence of (impacts of) climate change on wetland ecosystems, international MEA science/policy framework.

Gwawr Jones is a Senior EO Specialist and will provide quality assurance of monitoring techniques and technical assistance in the climate modelling.

Lucy Beagley is an Ecosystem Services Adviser.

---

**Have you included a Letter of Support from this organisation?**

Yes

---

**3. Partner Name:**

Marine Conservation Society (MCS)

---

**Website address:**

<https://www.mcsuk.org/>

---

**Details (including roles and responsibilities and capacity to engage with the project):**

MCS is the UK's leading marine charity and Dr Peter Richardson, as Head of Ocean Recovery, has worked with partners the DECR and UoE in the Turks and Caicos Islands on sea turtle conservation and research since 2002.

MCS will provide the data from their long-term sea turtle satellite tagging programme, largely conducted in the Ramsar site, and with local consultants will coordinate ground-truthed mapping of the turtle foraging habitat associated with the tracking data.

In addition, MCS will support the capacity building workshops to ensure learning and expertise from the sea turtle work is transferred to and maintained within DECR. MCS is currently conducting some ongoing sea turtle research with DECR in TCI and has the capacity to add the work described here to ongoing efforts.

Peter will bring his expertise of the area and knowledge of sea turtle conservation, the MCS Marine Protected Area work to the project and will assist with the delivery of the workshops, and stakeholder engagement.

---

**Have you included a Letter of Support from this organisation?**

Yes

---

**4. Partner Name:**

University of Exeter (UoE)

**Website address:**

<https://www.exeter.ac.uk/research/marine/>

**Details (including roles and responsibilities and capacity to engage with the project):**

The Centre for Ecology and Conservation (CEC) at the University of Exeter (UoE), established in 2003, currently has 60 active academic faculty with vast interdisciplinary experience who are engaged in research in the fields of evolutionary biology, behavioural ecology, fundamental/applied ecology, conservation and social sciences. CEC has an established track record of working with a diverse range of stakeholders and partner organisations on Darwin Initiative projects covering aspects of marine vertebrate movement, ecosystem-based management, resource governance, marine and land-use planning, community engagement, participatory mapping, and fisheries monitoring and enforcement.

Dr Phil Doherty specialises in marine spatial ecology and movement of marine vertebrates. Having previously worked on several Darwin Initiative projects, and the analysis of marine turtle migration within the Turks and Caicos Islands waters and the wider Caribbean Sea, Phil Doherty will bring key science and data skills and experiences to the project.

UoE will be responsible for supporting data analysis with partners.

---

**Have you included a Letter of Support from this organisation?**  Yes

---

---

**5. Partner Name:** Wavehill

---

**Website address:** <https://www.wavehill.com/>

---

**Details (including roles and responsibilities and capacity to engage with the project):** Wavehill is a social and economic research company and will lead on evaluation activities and provide specialist advice on monitoring issues.

Set up in 1992, Wavehill has offices across the UK. In November 2020 Wavehill became an employee-owned business.

Wavehill delivers M&E and works closely with partners to use research and evaluation services to help organisations to make better decisions and, thus, improve the services that they provide and the outcomes that they generate.

We do this via a wide range of services including literature reviews, consultations, surveys, data analysis, social and economic impact assessments, and evaluation.

We have a strong and well-established professional team of researchers and consultants. The team combines strong technical skills with professional experience in research, evaluation and the management and delivery of projects and programmes.

Our contribution to this project would be led by a director of the business, Endaf Griffiths, who has over 20 years-experience in research and evaluation and worked with Environment Systems on a number of previous projects. Sufficient time has been ring fenced within Endaf's work programme to be able to make a full contribution to this project.

---

**Have you included a Letter of Support from this organisation?**  Yes

---

---

**6. Partner Name:** *No Response*

---

**Website address:** *No Response*

---

**Details (including roles and responsibilities and capacity to engage with the project):** *No Response*

---

Have you included a Letter of Support from this organisation?  Yes  No





---

---

If you require more space to enter details regarding Partners involved in the Project, please use the text field below.

*No Response*

Please provide a cover letter responding to feedback received at Stage 1 if applicable and a combined PDF of all Letters of Support.

-  [Environment Systems feedback response & letters of support Combined](#)
-  02/02/2021
-  11:42:14
-  pdf 1.6 MB

## Section 6 - Project Staff

---

### Q11. Project Staff

Please identify the core staff on this project, their role and what % of their time they will be working on the project. Further information on who should be classified as core staff can be found in the guidance.

Please provide 1 page CVs for these staff, or a 1 page job description or Terms of Reference for roles yet to be filled. These should match the names and roles in the budget spreadsheet. If your team is larger than 12 people please review if they are core staff, or whether you can merge roles (e.g. 'admin and finance support') below, but provide a full table based on this template in the PDF of CVs you provide.

Name (First name, Surname)	Role	% time on project	1 page CV or job description attached?
Dr Katie Medcalf	<b>Project Leader</b>	5	Checked
Samuel Pike	Project Manager & Remote Sensing Consultant	17	Checked
Elsa-Kristin Naumann	Environmental Data Consultant	7	Checked
Suzana Barreto	Software Developer	4	Checked





Do you require more fields?

Yes

Name (First name, Surname)	Role	% time on project	1 page CV or job description attached?
Bryan Naqqi Manco	TCI Project Lead - Terrestrial Ecologist	5	Checked
New recruit	Wetland Ecologist	100	Checked
Stephen Grady	Senior Scientific Officer- Ramsar expert	3	Checked
Lucy Beagley	Higher Scientific Officer	5	Checked
Gwawr Jones	Senior Scientific Officer	3	Checked
Peter Richardson	Marine scientist	2	Checked
Phil Doherty	Marine Scientist	2	Checked
Endaf Griffiths	M&E lead	3	Checked

**Please provide 1 page CVs (or job description if yet to be recruited) for the Project staff listed above as a combined PDF.**

**Ensure the file is named clearly, consistent with the named individual and role above.**

 [Environment Systems-Team Combined CVs](#)  
 02/02/2021  
 11:50:51  
 pdf 1.98 MB

**Have you attached all Project staff CVs?**

Yes

## Section 7 - Background & Methodology

### Q12. Problems the project is trying to address

**Please describe the problem your project is trying to address in terms of environment and climate issues in the UKOTs.**

**For example, what are the specific threats to the environment that the project will attempt to address? Why are they relevant, for whom? How did you identify these problems? How will your proposed project help?**

**Please cite the evidence you are using to support your assessment of the problem (references can be listed in your additional attached PDF document which can be uploaded at the bottom of the page).**

The Ramsar site on North and Middle and the wetlands of East Caicos site hold internationally significant biodiversity. The area has a very complex hydrology of different wetland habitats including mangroves, swamps, saline lagoons, coral reef, and sea-grass beds.

The wetlands have an essential role in protecting the islands from the effects of hurricanes and tsunamis. They are instrumental in dissipating wave energy and stabilising the coastline. The wetlands contain a significant natural capital value, storing large quantities of carbon and provide nursery grounds to key fisheries, including conch and lobster.

The wetlands face two threats: climate change and development pressure.

Since the site was designated 30 years ago changing climate has altered the site dynamics, leading to issues e.g. coral bleaching and excessive erosion. This is likely to be exacerbated in the future as sea levels rise.

Since a study in 2005 to produce a static habitat map, no work has been done on describing the dynamics of the wetland sites or change to indicator species such as the sea turtle. There is no indication of how these dynamics will be affected by climate change and no evidence that the current protected area is sufficient to maintain biodiversity, fisheries, carbon, and coastal protection.

Those areas that are not protected under the Ramsar convention are under threat by development and will also be in scope.

DECR have been explicit in describing their requirement for this project. By setting up a remote sensing driven monitoring system, examining historic change in the systems and undertaking future modelling we will describe the dynamic functioning of the wetlands, provide robust scientific evidence for potentially extending the Ramsar designation whilst building local capability to use data and technology and promote the importance of the sites amongst key stakeholders, fisher people, policymakers and developers.

## Q13. Methodology

**Describe the methods and approach you will use to achieve your intended Outcome and Impact. Provide information on:**

- How you have analysed historical and existing initiatives and are building on or taking work already done into account in project design. Please cite evidence where appropriate.
- The rationale for carrying out this work and a justification of your proposed methodology.
- How you will undertake the work (materials and methods).
- How you will manage the work (role and responsibilities, project management tools etc.)

**Please make sure you read the [Guidance Notes](#) before answering this question.**

**(This may be a repeat from Stage 1 but you may update or refine as necessary)**

This project will build on and utilise data from previous and current projects, including:

- Darwin Initiative Project 8164, DPLUS081, TCI Turtle Project; TCI DPLUS Tropical Plant Areas, DPLUS199, DECR work to develop a TCI coral action plan and ongoing coral disease work, and DPLUS094, 2018 LIDAR data from UKHO and 2021 LIDAR data from the Caribbean Community Climate Change Centre (CCCC).

The underlying rationale is to ensure TCI wetlands and their internationally significant biodiversity are

maintained into the long-term despite a changing climate, due to the enhanced understanding, monitoring and knowledge of what contributes to their resilience (Q31 logframe).

#### WP 1: Mapping and modelling

Collation of existing datasets from the 2002-2005 study on Caicos islands and from DPLUS081, to look at historic change in a 15 year time period. This will help understand longer-term dynamics of the area. We will use Sentinel-1 satellite imagery (<https://data.envsys.co.uk/>) to produce maps on short term wetland dynamics and with the assistance of field data, model habitat suitability for key wetland habitats and how they change for scenarios based on UKCP18 global predictions in 2050 and 2080. Finally, we will model natural capital, concentrating on carbon budgets, coastal protection and sediment budgets, building indicators which show good ecological condition. MCS and Exeter will model the new habitat data with existing surveys of recent-historical turtle tracking within and adjacent to the Ramsar site to understand the use by a keystone species.

#### WP 2: Monitoring

A monitoring framework will be established. We will design and implement a ground data collection plan and establish relationships between Sentinel-1 data and field data. We will design and build a dashboard (ESRI) to enable monitoring data to be viewed interactively and securely online. The dashboard will be publicly viewable for all but the most sensitive data (e.g. sensitive species locations).

#### WP 3: Capacity building

The project will increase capacity, recruiting a new wetland officer, and training them and key stakeholders in:

- Better understanding of wetland dynamics and what is good ecological condition
- Fieldwork data collection
- Understanding of GIS, Sentinel -1 radar imagery and climate scenarios

We will also put out press releases online and through the local 'Island Times' to bring attention to the important role of the wetlands. We will embed the work done across all WPs to sustain the project's impact (see Q.20).

The project will regularly refer to the findings of ongoing M&E activity (see Q.33) to inform changes to the proposed approach to best achieve the intended outcome.

Project roles: Environment Systems (project lead, technical delivery of remote sensing, modelling and monitoring), DECR (impact, stakeholder engagement, field work), JNCC (Ramsar expertise, science review), MCS (marine expertise, data), Exeter (marine expertise, data).

Environment Systems operates effective and efficient project management processes. Our project manager will run the project using our established project management approach; identifying SMART goals that take account of project requirements in a user-centric approach. We operate ISO 9001:2008 certified quality systems.

**If necessary, please provide supporting documentation e.g. maps, diagrams, and references etc., as a PDF using the File Upload below.**

---

## Section 8 - Stakeholders and Beneficiaries

---

### Q14. Project Stakeholders

**Who are the stakeholders for this project and how have they been consulted (include local or host government support/engagement where relevant)? Briefly describe what support they will provide and how the project will engage with them.**

Key project stakeholders:

- DECR
- Other TCI departments and key organisations including; Survey and Mapping Department, Department of Planning, Crown Land Unit, Department of Agriculture, Department of Disaster Management and Emergency, Turks and Caicos National Trust
- The people of North and Middle Caicos
- Ramsar Convention and associated partners

How have they been consulted:

- During the proposal phase DECR have been the main consultee and through them other TCI Departments, plus individuals connected to Ramsar (via JNCC)
- This builds on capacity-building training workshops under DPLUS081 from attendee feedback

What support they will provide:

DECR are providing resources in kind to the project (e.g. staff time, facilities etc). Other stakeholders will continue to be involved and consulted to ensure sustainability. They will attend training events and help with the collection, sharing, or processing of data related to their respective remits.

How the project will engage with them:

Stakeholders will be included through meetings, workshops and through frequent regular contact on the specific components of the Ramsar site and the wetlands ecosystem services that affect and benefit their respective remits. DECR already has strong working relationships with these departments and institutions and all are aware of the increasing pressure on the Ramsar site as well as the potential impacts of climate change through sea level rise and severe weather events on the area and the services it provides.

### Q15. Institutional Capacity

**Describe the lead organisation's capacity (and that of partner organisations where relevant) to deliver the project.**

Environment Systems is an environmental and agricultural data company. We are trusted providers of environmental and agricultural evidence and insight to governments and industry across the world.

Our consultancy delivers bespoke advice and solutions for land management, monitoring and policy. Our data services deliver always-on, accessible data insights from satellite earth



observations.

As lead organisation, Environment Systems has the experience and track record to deliver fully on this project. This includes leading major environmental projects, bringing together partners and stakeholders to form expert delivery teams, agreeing and managing partner and stakeholder inputs and budgets and ensuring high quality delivery to clients on time and within budget.

This experience extends to work in the British OTs, having worked closely with stakeholders in TCI and other UKOTs, and having worked with JNCC on a range of projects both in the UK and in the OTs. We are members of the Overseas Territories GIS Group, which aims to disseminate and ensure best practice in mapping and the use of spatial data in the OTs.

DECR is a government agency on TCI, overseeing conservation, protection and natural resource management. They will oversee and manage the fieldworks in TCI, and will provide vessels, training/conference rooms, equipment and crew for ground truthing operations. The DECR and other TCI government department's technical and support staff will be involved from implementation through completion of the project.

Our other UK-based project partners all confirm they have the capacity and capability to complete their roles in the project.

## Q16. Project beneficiaries

**Who will your project benefit? You should consider the direct benefits as a result of your project as well as the broader indirect benefits which may come about as a result of your project achieving its Outputs and Outcome. The measurement of any benefits should be included in your project logframe.**

DECR will benefit by establishing the evidence base for ongoing management of the Ramsar site (30% of TCI land area) and the connected Nature Reserve, plus a more solid understanding of the Ramsar site's contribution to fisheries through its habitats and its support of the TCI sea turtle population. It will establish the evidence base to enable a potential expansion of the Ramsar site.

Benefits to other TCIG departments including Department of Planning, Survey and Mapping, DDME, and Agriculture will come through understanding historical and predicted changes in the land area from impacts of climate change. Fishers depending on marine resources nourished by the Ramsar site will benefit from increased understanding of its ecosystem services.

The tourism sector will benefit both from potential increased area to use for ecotourism and with understanding of ecosystem services for protection from climate change, to guide sustainable development practices related to tourism.

Benefits to the people of the Islands will include more robust protection from severe weather events through understanding of related ecosystem services and following guidelines toward wiser use of the land in and around the site. UK Government benefits by meeting targets toward multilateral environmental agreements.

## Section 9 - Gender and Change Expected

---

### Q17. Gender (optional)

**How is your project working to reduce inequality between persons of different gender? At the very least, you should be able to provide reassurance that your proposed work is not increasing inequality.**

## **Have you analysed the context in which you are working to see how gender and other aspects of social inclusion might interact with the work you are proposing?**

Gender equality and inclusion is a fundamental human right and part of the SDGs (Goal 5). Gender Equality Act 2014 seeks provision of development assistance which is likely to contribute to reducing gender inequality. Gender equality and equity are important issues to the project team.

Female staff hold key positions in Environment Systems (Environment Director and principal professional staff). Over half the staff are female. We actively encourage and enable career progression in female employees. The other UK-based partners operate similar gender policies.

DECR recruits staff under Human Resources Management Directorate policies which include protections against discrimination by gender, and payroll is guaranteed for positions regardless of the gender of the occupant of the position.

While fishing and marine tourism tend to be more male-dominated industries in TCI, there is female representation in both, and it's increasing. Environmental stewardship in TCI has been guided by community meetings in which gender diversity has been well represented over 20 years.

The key delivery team is gender balanced and will put in mechanisms to enable women to participate in meetings so their knowledge and experiences from daily practices are accounted for. A participatory and inclusive gender approach will be at the project core.

## **Q18. Change expected**

**Detail the expected changes this work will deliver. You should identify what will change and who will benefit a) in short-term (i.e. during the life of the project) and b) in the long-term (after the project has ended). Please describe the changes for the environment and, where relevant, for people in the OTs, and how they are linked.**

The project will provide both short-term and long-term change and benefits for TCI and people on the islands.

In the short term the project will positively impact on TCI wetlands, specifically the existing Ramsar site and potential extension by delivering:

- Robust scientific evidence for a review of the Ramsar boundaries,
- Documented scenarios on how the site may change due to future climate change.

This will benefit biodiversity across the whole island, provide more resilience from extreme weather events, and benefit key economic sectors such as tourism. It will support the people of TCI who rely on local fishing for their livelihood, protecting it from climate change.

Project results and monitoring will be built into the TCI Environment Strategy to provide an active monitoring system.

Other benefits in the short term include:

1. An evaluation of change in the terrestrial wetlands over the last fifteen years, tracked to climate change
2. A document outlining the functions of the wetlands and a measure of good ecological condition, which can be monitored remotely, linked to data from the shallow water environment for key species such as green turtle
3. A monitoring plan outlining the new techniques developed and a dashboard run via a routinely updated, accessible website.

In the longer term the project will develop the capacity of key organisations (including DECR) on the island to understand, and monitor the wetlands and their resilience. It will provide additional trained capacity to

support management actions and apply for further funding based on the robust scientific data collected. It will create a more resilient wetland environment for TCI.

The methods developed for this project can subsequently be used in other similar locations in the Caribbean to disseminate benefits more widely across the region, helping maintain biodiversity beyond the life of this project in other areas.

## Q19. Pathway to change

**Please outline your project's expected pathway to change. This should be an overview of the overall project logic and outline how you expect your Outputs to contribute towards you overall Outcome, and, longer term, your expected Impact.**

Developing an authoritative evidence base and monitoring framework for TCI wetlands (existing Ramsar and potential site expansion), is critical so that the wetland biodiversity will be more resilient to the changing climate.

The project will:

- Provide 5 years of radar remote sensing data, together with the Sentinel-2 data from DPLUS081, combining this with the field campaign to link key aspects of the remote sensing with key states of the wetland environment.
- Consider historic change from the earlier wetlands survey and link this into the climate model over these past two years and future looking scenarios for 2030 and 2050.
- Build on existing work on keystone species (green turtles) to show the extent of habitat necessary to maintain the population in future scenarios.
- Draft evidence to underpin a review of Ramsar boundaries, considering climate change.
- Implement a dashboard to view routinely updated monitoring data.
- Build capacity of local staff to carry out field work, produce analysis, present maps, and utilise the dashboard monitoring.

Longer term this will deliver our impact goal of TCI wetlands and their internationally significant biodiversity being maintained into the long-term despite a changing climate, due the enhanced understanding, monitoring and knowledge of what contributes to their resilience.

## Q20. Exit strategy

**State how the project will reach a stable and sustainable end point, and explain how the outcomes will be sustained, either through a continuation of activities, funding and support from other sources or because the activities will be mainstreamed in to "business as usual". Where individuals receive advanced training, for example, what will happen should that individual leave?**

Capability and capacity building lies at the heart of this proposal. Through workshops, active involvement and staff exchanges, knowledge will be shared with local staff. Training materials and operating guidelines will be produced, to facilitate ongoing activities after this project. This has proven successful in DPLUS081 that Environment Systems led and during DPLUS022 and DPLUS045 that Environment Systems was a partner on.

The project team have a strong track record of delivering sustainability beyond the lifetime of projects in the Caribbean over a number of years. This project will put in place a digital infrastructure for monitoring, trained staff and resources that will enable decision makers in TCI to implement approaches to deal with the effects of climate change in the context of ecosystem services and biodiversity monitoring beyond the end of the project, aligning closely with existing national strategies.

DECR intends to retain the project officer post permanently. The Department sees a need to commit to the outcomes of this project in the long term and to ultimately make the case to decision-makers for the Ramsar site, and potential extension, to be seen as a cornerstone of TCI resilience due to the multitude of ecosystem services it provides.

## Section 10 - Funding and Budget

---

### Q21. Budget

**Please complete the appropriate Excel spreadsheet, which provides the Budget for this application. Some of the questions earlier and below refer to the information in this spreadsheet. Note that there are different templates for projects requesting over and under £100,000 from the Darwin Plus budget.**





- [R9 D+ Budget form for projects under £100,000](#)
- [R9 D+ Budget form for projects over £100,000](#)

**Please refer to the [Finance Guidance for Darwin/IWT](#) for more information.**

**N.B: Please state all costs by financial year (1 April to 31 March) and in GBP. Darwin Plus cannot agree any increase in grants once awarded.**

**Budgets submitted in other currencies will not be accepted. Use current prices – and include anticipated inflation, as appropriate, up to 3% per annum. The Darwin Initiative cannot agree any increase in grants once awarded.**

---

 [Environment Systems darwin-plus-round9-budget-over-100k](#)  
 01/02/2021  
 18:27:29  
 xlsx 69.08 KB

### Q22. Funding

**Q22a. Is this a new initiative or a development of existing work (funded through any source)?**

- New initiative

**Please provide details:**

The project is a new initiative, building on and extending previous projects in TCI:

- Darwin Initiative Project 8164 "Planning for Biodiversity Conservation and Sustainable Development around Turks & Caicos Ramsar Site," 1999 -200: providing baseline data for comparison of the 20 year climate change analysis;
- DPLUS081, building on GIS and remote sensing skills, using radar data and wetland science;
- TCI Turtle Project; by joining the maps and data from this project we will be able to document the role of seagrass and its extent;
- TCI DPLUS Tropical Plant Areas: this project will run concurrently, there will be savings in fieldwork

expenses and benefits from the knowledge gained to cross-fertilise both projects;

- DPLUS199 'Technical assistance programme for effective coastal-marine management in the TCI': this project will run concurrently and will share knowledge and co-ordinate on any on-island workshops/events
- DECR work to develop a TCI coral action plan and ongoing coral disease work
- DPLUS094 'Developing Marine Spatial Planning Tools for the Turks and Caicos Islands' - by contributing data produced under this project to the TCI data portal
- DPLUS098 'Restoring and Safeguarding Wetlands of the Caribbean UKOTs' (RSPB, DECR, TCI National Trust) which complements but has different focus areas and wetlands.

**Q22b. Are you aware of any other individuals/organisations/projects carrying out or applying for funding for similar work?**

No

**Q23. Co-financing**

**Are you proposing co-financing?**

Yes

**Q23a. Secured**

**Provide details of all funding successfully levered (and identified in the Budget) towards the costs of the project, including any income from other public bodies, private sponsorship, donations, trusts, fees or trading activity, as well as any your own organisation(s) will be committing.**

(See [Finance for Darwin/IWT](#) and [Guidance Notes](#))

Donor organisation	Amount	Currency code	Comments
Environment Systems	████	GBP	Access to Environment Systems Satellite Data Services <a href="https://data.envsys.co.uk/">https://data.envsys.co.uk/</a> for national Sentinel-based analytics.
DECR	████	GBP	5% of B Naqqi Manco time as the DECR project lead. Plus 20% of Junel "Flash" Blaise's time as project fieldwork support, plus vehicle and boat use, office space and some field equipment.
MCS	████	GBP	Will provide 'In kind' staff time across the two years.

**Q23b. Unsecured**

**Provide details of any matched funding where an application has been submitted, or that you intend applying for during the course of the project. This could include matched funding from the private sector, charitable organisations or other public sector schemes. This should also include any additional funds required where a donor has not yet been identified.**

Date applied for	Donor organisation	Amount	Currency code	Comments
No Response	No Response	0	No Response	No Response
No Response	No Response	0	No Response	No Response
No Response	No Response	0	No Response	No Response
No Response	No Response	0	No Response	No Response

**Do you require more fields?**

No

## Section 11 - Finance

---

### Q24. Financial Controls

**Please demonstrate your capacity to manage the level of funds you are requesting. Who is responsible for managing the funds? What experience do they have? What arrangements are in place for auditing expenditure?**

To ensure that the resources of the project are utilised in the best possible way, only the Environment Systems Executive Board have authority to approve and control requisitions and expenditure. The Commercial Director leads the development of and signing of sub contracts and the Operations Director has an established and effective system of internal cost control and risk management, oversees the relationship with external audit and reviews the annual financial statements. Environment Systems has an established and effective internal time recording system for the tracking of staff time.

The project manager will be responsible for the day-to-day management of project funds, subject to the controls described above. The project director has over 25 years experience in successful project leadership and delivery. The project manager has over 9 years experience managing projects and budgets for Government customers.

All goods and services will be procured in a fair and open manner.

## Q25. Financial Management Risk

**This question considers the financial risks to the project. Explain how you have considered the risks and threats that may be relevant to the successful financial delivery of this project. This includes risks such as fraud or bribery, but may also include the risk of fluctuating foreign exchange and internal financial processes such as storage of financial data.**

Environment Systems has fully considered project risks and threats. These include;

Strategic and financial:

- Global pandemic preventing business as usual operations causes delays beyond project control. Key to build on learning from the last year.
- Project budget is in GBP£ but key costs (DECR, workshops, travel) are in USD\$.
- Future flight costs are viewed as high risk.

Capacity and skills:

- Shadowing for skills, experience and capacity are required to provide a flexible and responsive operation.
- Resourcing plans meet requirements by bringing together leading experts and organisations.

Coordination and project management:

- Well-defined tasks describe the project elements and organisational roles.
- Regular feedback and reporting (internal/external) and change control processes.
- Established communication channels already exist across project partners.

Collaborative working relationships:

- Collaborative working with stakeholders is crucial for success.
- Contractual arrangements ensure the consortium functions as a single team.
- All consortium members have agreed for project outputs to be made available under open licencing.

Fraud and bribery

- Zero tolerance for fraud and bribery based on adherence to the Bribery Act 2010 and organisational policies. Any indication of fraud or bribery will be reported immediately.

A risk register will be developed at the outset and updated and shared throughout its lifecycle.

## Q26. Balance of budget spend

**Explain the thinking behind your budget in terms of where funds will be spent. What benefits will the Territory see from your budget? What level of the award to you expect will be spent locally? Please explain the decisions behind any funding that will not be spent locally and how those costs are important for the project.**

The total project budget is £[REDACTED] plus £[REDACTED] ( [REDACTED] in kind contributions from the project partners. The project partner budgets have all been agreed as a fair and balanced reflection of the work required.

Environment Systems as the project lead and main technical delivery partner (remote sensing, modelling and monitoring) are receiving £[REDACTED] and providing £[REDACTED] in kind. Approximately £[REDACTED] will be spent in TCI during workshops and approximately £[REDACTED] will be spent on local consultancy in TCI.

DECR as the TCI lead and in country delivery partner are receiving £ [REDACTED] and providing £ [REDACTED] in kind. JNCC will provide key strategic and technical assistance and are receiving £ [REDACTED] and providing £ [REDACTED] in kind. Up to £ [REDACTED] of the JNCC budget will be spent in TCI during one of the workshops.

MCS as marine science experts are providing data and expertise to the project and are receiving £ [REDACTED] and providing £ [REDACTED] in kind.

University of Exeter are marine science experts providing data and expertise to the project and are receiving £ [REDACTED]

In total the project expects to spend over £ [REDACTED] (> [REDACTED] of Darwin grant in TCI).

## Q27. Capital Items

**If you plan to purchase capital items with Darwin Plus funding, please indicate what you anticipate will happen to the items following project end. If you are requesting more than 10% capital costs, please provide your justification here.**

A laptop will be purchased for the new DECR recruit to support mapping, data processing, communications, and reporting. At the end of the project, it will continue to be used by the new recruit to continue the work as a result of the capacity building in the project. The laptop will represent 0.6% of the project budget.

## Q28. Value for Money

**Please describe why you consider your application to be good value for money including justification of why the measures you will adopt will secure value for money.**

The project provides excellent value for money. This is manifest in the following ways:

- The project has been developed from a clear need defined by DECR. The project team has worked together closely during the proposal writing stage, putting in place strong foundations for value for money delivery.
- It will build on the success of other work, and utilise IT equipment, already on TCI e.g. from DPLUS081.
- The project team, across all organisations, will utilise an appropriate mix of staff seniority across all activities to ensure the most efficient delivery and therefore best value for money.
- The project will make use of relevant technology for communications to avoid excess, expensive travel, which may, in any event, become much more expensive post-Covid. This includes the holding of online surgeries throughout the lifetime of the project.
- Any travel will be for targeted trips to TCI to develop relationships and ensure strong foundations for capacity building.
- Capacity building is embedded in the project from the outset to ensure long term impacts are realised beyond the end of the project, ensuring value for money legacy.
- The project team has all successfully worked together previously, ensuring that the work can start quickly and proceed efficiently, building on existing working relationships and understanding of data and technology to be used on the project.
- All the project team have a deep understanding of the environment and culture of TCI, having worked on the islands previously, so can hit the ground running at project initiation.

## Q29. Outputs of the project and Open Access

**All outputs from Darwin Plus projects should be made available on-line and free to users whenever possible. Please outline how you will achieve this and detail any specific costs you are seeking from Darwin Plus to fund this.**



The project team is committed to making all project outputs available on-line and under an open licence for others to use and build upon. In addition:

Data standards:

Environment Systems actively supports the underpinning principles of best practice for data collection, management and analysis; adoption and use of common data and metadata standards (ISO19139), promotion of 'collect once use many times'.

Data access:

All data outputs for the project will be published under open licence (subject to Data Protection Act, or legacy licencing outside of project control). Where appropriate, data layers will be added to global data centres such as GBIF, thereby increasing the visibility of the data. On island data accessibility will be enhanced by the use of the GIS group on TCI.

Commercial imagery will be purchased with multi-use licences. Raw Sentinel 1 and 2 data is open licenced and Environment Systems Analysis Ready Data is published under Creative Commons and will be freely shareable.

Software and training:

Analysis systems developed for the project will use free open source software (e.g. QGIS and R) to avoid vendor lock-in, or licence restrictions. Training material will be written to allow new members of staff to access the technology and data once the project is ended.

Public access:

Environment Systems undertake to make available the project outputs or links to outputs via [www.envsys.co.uk](http://www.envsys.co.uk) to ensure that they can be publicly accessed and sign posted post-project.

## Section 12 - Safeguarding

---

### Q30. Safeguarding

**Projects funded through Darwin Plus must fully protect vulnerable people all of the time, wherever they work. In order to provide assurance of this, projects are required to have appropriate safeguarding polices in place. Please confirm the lead organisation has the following policies in place and that these are available on request:**

<b>We have a safeguarding policy, which includes a statement of our commitment to safeguarding and a zero tolerance statement on bullying, harassment and sexual exploitation and abuse</b>	Checked
<b>We have attached a copy of our safeguarding policy to this application</b>	Checked
<b>We keep a detailed register of safeguarding issues raised and how they were dealt with</b>	Checked
<b>We have clear investigation and disciplinary procedures to use when allegations and complaints are made, and have clear processes in place for when a disclosure is made</b>	Checked
<b>We share our safeguarding policy with downstream partners</b>	Checked
<b>We have a whistle-blowing policy which protects whistle-blowers from reprisals and includes clear processes for dealing with concerns raised</b>	Checked

**We have a Code of Conduct in place for staff and volunteers that sets out clear expectations of behaviors - inside and outside of the work place - and make clear what will happen in the event of non-compliance or breach of these standards**

---


Checked

**Please outline how you will implement your policies in practice and ensure that downstream partners apply the same standards as the lead organisation.**

Environment Systems has a safeguarding policy which is submitted with this application. Safeguarding children and vulnerable adults is a priority for Environment Systems and all partners in this project. We have assessed the risk of safeguarding issues in the project. The risk is highest for work on-island, where there will be contact with the public and other stakeholders. There is a low risk of safeguarding issues in the work carried out remotely in UK office bases. The activities carried out by Environment Systems and project partners mean that there are a range of staff and volunteers who may come into contact with people who are at risk of harm from the public and other stakeholders.


As project leaders we will ensure that the project partners (through contracts) and all staff and volunteers are made aware of the need for safeguarding and are requested to help promote the welfare of children and vulnerable adults, and report any safeguarding concerns to the project manager and other relevant persons.

**Please upload the Lead Organisation's Safeguarding Policy as a PDF**

 [Environment Systems Safeguarding Policy v1.](#)

[Q](#)

 02/02/2021

 11:55:44

 pdf 204.39 KB

## Section 13 - Logical Framework

---


### Q31. Logical Framework


Darwin Plus projects will be required to monitor (and report against) their progress towards their expected Outputs and Outcome. This section sets out the expected Outputs and Outcome of your project, how you expect to measure progress against these and how we can verify this.


- [Stage 2 Logframe Template](#)

Please complete your full logframe in the separate Word template and upload as a PDF using the file upload below. Copy your Impact, Outcome and Output statements and your activities below - these should be the same as in your uploaded logframe.

**Please upload your logframe as a PDF document.**

 [Environment Systems R9 DPlus St2 Logical Framework DPR9S11042](#)

 02/02/2021

 16:13:00

 pdf 155.63 KB

**Impact:**

TCI wetlands and their internationally significant biodiversity are maintained into the long-term despite a changing climate, due to the enhanced understanding, monitoring and knowledge of what contributes to their resilience.

### **Outcome:**

TCI creates and maintains scientifically robust evidence to support, and potentially extend the Ramsar site, through understanding and monitoring of key wetland natural functions to support future TCI resilience

### **Project Outputs**

---

#### **Output 1:**

1. Documentation, maps, and methods:

a) evidence of the functions of the wetland and

b) measures of good ecological condition established by the project

c) reporting methods that take into account the changing climate.

---

#### **Output 2:**

2. A monitoring intelligence dashboard enables users to view the latest in-situ and remotely sensed data in intuitive and interactive visualisations, on a single screen.

---

#### **Output 3:**

3. Participants in the project develop the knowledge and skills necessary to effectively use the project tools required.

---

#### **Output 4:**

*No Response*

---

#### **Output 5:**

*No Response*

---

### **Do you require more Output fields?**

**It is advised to have less than 6 Outputs since this level of detail can be provided at the Activity level.**

No

### **Activities**

**Each activity is numbered according to the Output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1.**

1.0 Mapping and modelling

1.1a i. Mapping and modelling historic change: Data collation and modelling to show the longer term changes for the wetlands since Darwin Project 8146

ii. Digital copies of the habitats maps produced in Darwin Project 8146 created

iii. Coastal / tidal limit change maps, annual and long-term using historical data

iv. Ground collection data plan created for a detailed field scale species/habitats map. Using as a basis the map from DPLUS081.

- v. A 2022 habitat map of wetland produced from Satellite and field work
- vi. A 2022 broad scale shallow water marine habitat map.
- vii. Wetland habitat change map from 2001 to 2022

1.1b Mapping and modelling current wetland dynamics: Data collation to provide the current data on the wetland dynamics and to find useful indicators that can be automated to describe good ecological condition.

i. Data collation to include: Sentinel 1 (S1) and Sentinel 2 (S2) satellite time series from the date of images held on island (January 2020) to the present day. Ultra-high resolution LiDAR which is due to be obtained from the CCCC project, data from Darwin 8194 and DPLUS081. Existing species data, held by partners and in the system developed for the marine areas for DPLUS119; climate change data from UKCP18.

Modelling to describe the current wetland systems to include:

- ii. Dynamics in wetland and shallow water marine environments from satellite imagery
- iii. Biodiversity statistics and appropriate vegetation density for key years of available satellite data
- iv. Sediment modelling - including inland flow patterns to the coastal zones and sediment plumes into the marine environment
- v. Two indicators designed to show good ecological condition, verified via JNCC

1.2 Modelling climate change: Modelling to describe climate change impacts on the systems

- i. Potential change in the extent of the intertidal zone 2050 - 2080
- ii. Potential change in the ecological envelopes for the different components of the wetlands 2050, 2080
- iii. Risk models for terrestrial areas and impacts to properties that will be threatened by climate change 2050 and 2080
- iv. Using in-house technical expertise JNCC will quality assure the monitoring techniques identified and to provide technical assistance in the climate modelling, based on the different scenarios used in the project, to ensure the outputs are of the highest quality for use by DECR and other stakeholders in TCI.

1.3 Mapping and modelling natural capital resilience: Modelling to show how the current wetland configurations / landscape scale resilience to this. To include modelling to show the spatial extent of natural capital stock (existing) and opportunity to enhance these with the resultant maps and statistical. Includes additional field data collation for sea turtle nesting sites in TCI and key shallow water marine environments

- i. Carbon storage in the intertidal wetland area, together with likely nutrient budgets analysis (using scientific literature)
- ii. Detailed storm impact models and natural capital risk maps present day 2050 and 2080
- iii. Model and map of the extent of the wetland protect area which will be needed to ensure all envelopes for key wetland species have sufficient room to move and develop to provide coastal protection current day 2050 2080
- iv. Key areas of the terrestrial environment that will need special care development in order to avoid changes in sediment burden from soil erosion which could significantly impact the wetlands.
- v. Opportunity maps showing where it will be possible to enhance the wetland and coastal environment produced for the basis of ongoing conservation and resilience work in TCI.

1.4 Species modelling: Modelling to compare the current habitat maps with species movement data from TCI turtle project (Exeter University)

- i. Modelling to describe the ecological dynamic function, natural capital stock and opportunities. This will help to document and prioritise the key dynamic and non-dynamic functions of the wetlands needed for longer term resilience.
- ii. Using the work of 1.1b and 1.1a together with current wetland literature, we create indicators of good ecological condition
- iii. Using these and the habitat outputs, we will monitor species data from University of Exeter and MCS previous projects.

1.5 Publicity of findings: and the number of downloads of materials increase by at least 20% immediately following publicity

- i. Establish a project webpage, to advertise the project and to host documents and maps produced.
- ii. Produce the public-facing document for publication in the TCI Times of the Islands Green Pages outlining the 20-year changes in the wetlands
- iii. Conference paper prepared and presented - aiming for CIEEM webinar or Island Innovation event
- iv. Risk mapping and potential change due to climate change paper presented in relevant conference; article or press release in TCI with link
- v. All natural capital modelling to feed into the Natural Capital Account statistic prepared for TCI 2022 (see desired outcomes DPLUS108) and methodology vi established so the statistics can be updated and fed in by staff on island for following years.
- vii. Paper prepared for Government to show scientific evidence and to put forward any case where applicable to widen the Ramsar area
- viii. Case begun to be demonstrated to the Ramsar initiative
- ix. Event on island to showcase the results for local residents
- x. Cases written for future funding, including sourcing funding types and writing the application, to take the most important aspect of natural capital opportunities modelling forward at the end of this project to retain wetland officer.

## 2.0 Monitoring

2.1 Monitoring plan: Using the results of the historic and future change analysis (1.1a and b and 1.3) design a monitoring plan based on frequency and importance of, seasonal, annual and long-term change. Design the indicators of significance, their frequency of change, and ease collection.

- i. Ground control points created to validate models before final run through

2.2 Design monitoring dashboard: document the full specifications, software and ease of communication with other on Island systems, data capture system, ongoing management and maintenance systems.

2.3 Build the demonstrator: monitoring dashboard and trial its use for both remote sensing and field data with new wetland officers and other key staff.

2.4 Populate with first years monitoring data: the dashboard is populated with data and its usability confirmed. This is validated by project partners.

2.5 Training: online to key stakeholders, using the dashboard system and the system is publicised. On island press release

## 3.0 Capacity building

3.1 Project web presence: set up a project page on the website, to be updated with reports, press releases and maps as the project progresses.

3.2 Recruitment: write job advertisement for TCI wetland officer, recruitment for the wetland officer for North Middle and East Caicos. Purchase GIS capable laptop for new TCI wetland officer post.

3.3 Public project kick-off: webinar with key stakeholders (2 mornings TCI time) by Zoom. Write press release for local press.

3.4 Online training surgeries: key staff on wetland functions, modelling methods and remote sensing to be held once a month for two hours so that local stakeholders understand and can replicate the modelling and mapping

3.5 On island workshop (1): wetland function, modelling and remote sensing and monitoring. Policy session delivered, press release issued.

3.6 Online workshop (2): monitoring options and method/dashboard agreed. Press release issued. Paper for webinar created. Demonstration to key policymakers.

3.7 On island workshop (3): Ramsar evidence and project show and tell. Monitoring system goes live. Article for local press.

3.8 On island training: in fieldwork methods and turtle survey and update on history of original Ramsar Designation carried out by wetland fieldwork expert Kathleen Wood.

## Section 14 - Implementation Timetable

---





### Q32. Provide a project implementation timetable that shows the key milestones in project activities

Provide a project implementation timetable that shows the key milestones in project activities. Complete the Excel spreadsheet template as appropriate to describe the intended workplan for your project.

[Implementation Timetable Template](#)

Please add/remove columns to reflect the length of your project. For each activity (add/remove rows as appropriate) indicate the number of months it will last, and fill/shade only the quarters in which an activity will be carried out.

---

 [Environment Systems - R9 DPlus Implementati  
on Timetable Template FINAL](#)  
 02/02/2021  
 12:48:01  
 xlsx 12.47 KB

## Section 15 - Monitoring and Evaluation

---

### Q33. Monitoring and evaluation (M&E)

Describe, referring to the Indicators above, how the progress of the project will be monitored and evaluated, making reference to who is responsible for the project's M&E.

Darwin Initiative projects are expected to be adaptive and you should detail how the monitoring and evaluation will feed into the delivery of the project including its management. M&E is expected to be built into the project and not an 'add' on. It is as important to measure for negative impacts as it is for positive impact. Additionally, please indicate an approximate budget and level of effort (person days) to be spent on M&E (see [Finance Guidance for Darwin/IWT](#)).

M&E will be integral to the project as whole: it will run throughout the two-year period as a minimum and will be embedded within all activity. Project partners are fully on board with the value of well-evidenced M&E.

Wavehill are monitoring and evaluation specialists and Endaf Griffiths (Director) will lead the M&E for this project. Wavehill will support the other project partners to consider M&E at every stage, from consultation methods to implementing learning from stakeholder feedback. Importantly, the evaluation will look at both process and impact.

The M&E plan will outline the key evaluation questions and the approach to monitoring that will help to design evaluations and data collection activities. This will allow us to identify the information we need to collect, how we can collect it, and who will collect it. The plan will be available, accessible and clear so that it can be understood by anyone involved in the project at any time. Data collection methods will include:

- Analysis of project management and monitoring data
- Surveys of stakeholders and project participants
- In-depth stakeholder and participant interviews
- Analysis of open access / published data

M&E activities will promote gender equity by elevating the voices of women. Furthermore, the M&E plan will seek evidence on how effectively the project is using gender equitable practices to reduce inequality, which will include analysis of the social inclusion and gender context in which the project will operate in the phase 1 baseline review.

There will be 3 phases to the M&E plan:

1. Evaluation design

Wavehill will host a Theory of Change workshop for the project partners to revisit the project plan and specifically the log-frame. This will provide an opportunity to review the logic, test the indicators and finalise the methods of verification and data collection processes. It will also draw special attention to the identified assumptions and agree means of mitigating these risks. To evidence change, the project partners will then collate and review baseline data and identify means of filling baseline data gaps. The M&E plan and baseline report will be published within the first 6 months.

2. Mid-term evaluation report

A report published after 12 months based on a rapid mid-term evaluation review to assess progress and risks and consider any changes as a result. There will be a focus on how well (effectively and efficiently) the project has been delivered to date.

3. Final evaluation report & legacy workshop

This will assess the extent to which the project has met its stated outcomes and contributed to its intended impact. The process evaluation will also provide important learning points for embedding outcomes and future projects. Project partners will host a workshop for stakeholders to share evaluation findings and co-produce a legacy plan.

<b>Total project budget for M&amp;E in GBP (this may include Staff, Travel and Subsistence costs)</b>	£ [REDACTED]
<b>Number of days planned for M&amp;E</b>	48.00
<b>Percentage of total project budget set aside for M&amp;E (%)</b>	[REDACTED]

## Section 16 - Certification

---

### Certification

**On behalf of the**

company

**of**

Environment Systems

**I apply for a grant of**





£251,807.00

**I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful.**

(This form should be signed by an individual authorised by the applicant institution to submit applications and sign contracts on their behalf.)

- I have enclosed CVs for project key project personnel, letters of support, budget and project implementation timetable (uploaded at appropriate points in application).
- Our last two sets of signed audited/independently verified accounts and annual report are also enclosed.

Checked

<b>Name</b>	Steve Keyworth
<b>Position in the organisation</b>	Co-Founder and Director
<b>Signature (please upload e-signature)</b>	 <a href="#">Steve Keyworth</a>  02/02/2021  12:03:03  png 7.74 KB
<b>Date</b>	02 February 2021

## Section 17 - Submission Checklist

### Checklist for submission

	Check
<b>I have read the Guidance documents, including the "Guidance Notes for Applicants" and "Finance Guidance".</b>	Checked
<b>I have read, and can meet, the current Terms and Conditions for this fund.</b>	Checked
<b>I have provided actual start and end dates for this proposed project.</b>	Checked
<b>I have provided a budget based on UK government financial years i.e. 1 April – 31 March and in GBP.</b>	Checked
<b>I have checked that the budget is complete, correctly adds up and I have included the correct final total at the start of the application.</b>	Checked
<b>The application has been signed by a suitably authorised individual (clear electronic or scanned signatures are acceptable).</b>	Checked



I have attached my completed logframe and timeline as a PDF using the templates provided.	Checked
I have included a 1 page CV or job description for all the Project staff identified at Question 11, including the Project Leader, or provided an explanation of why not.	Checked
I have included a letter of support from the Lead Organisation and main partner organisation(s) identified at Question 10, or an explanation of why not.	Checked
I have included a cover letter from the Lead Organisation, outlining how any feedback at Stage 1 has been addressed where relevant.	Checked
I have included a signed copy of the last 2 years annual report and accounts for the Lead Organisation, or provided an explanation if not.	Checked
I have checked the Darwin Plus website immediately prior to submission to ensure there are no late updates.	Checked
I have read and understood the Privacy Notice on GOV.UK.	Checked

### We would like to keep in touch!

**Please check this box if you would be happy for the lead applicant (Flexi-Grant Account Holder) and project leader (if different) to be added to our mailing list. Through our mailing list we share updates on upcoming and current application rounds under the Darwin Initiative, Darwin Plus and our sister grant scheme, the IWT Challenge Fund. We also provide occasional updates on other UK Government activities related to biodiversity conservation and share our quarterly project newsletter. You are free to unsubscribe at any time.**

Checked

#### **Data protection and use of personal data**

Information supplied in this application form, including personal data, will be used by Defra as set out in the latest copy of the Privacy Notice for Darwin, Darwin Plus and the Illegal Wildlife Trade Challenge Fund available [here](#). This Privacy Notice must be provided to all individuals whose personal data is supplied in the application form. Some information, but not personal data, may be used when publicising the Darwin Initiative including project details (usually title, lead organisation, location, and total grant value) on the GOV.UK and other websites.

Information relating to the project or its results may also be released on request, including under the 2004 Environmental Information Regulations and the Freedom of Information Act 2000. However, Defra will not permit any unwarranted breach of confidentiality nor will we act in contravention of our obligations under the General Data Protection Regulation (Regulation (EU) 2016/679).