

## JOURNAL

### PROJECT

Green Minds - Green Minds - a planning and management system for sustainable land use and nature based solutions

📍 Plymouth, United Kingdom

### TOPIC

Sustainable use of land and nature based solutions

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EXPERT

# Green Minds Journal 1: Insights on first significant urban rewilding actions in Plymouth

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website



This Journal 1 of the Green Minds project is providing insights on the first significant advancements in favour of rewilding and nature-based solutions in Plymouth since September 2019.

**Green Minds - a planning and management system for sustainable land use and nature-based solutions**

*Key words: green mindsets; urban rewilding; complexity management; integrated planning; health; wellbeing; social value; biodiversity; climate resilience; nature-based solutions; shared stewardship*

## PROJECT PRESENTATION

Green Minds addresses the need to plan high-quality green and blue infrastructure for Plymouth communities that maximise the benefits for health and wellbeing, social value, biodiversity, the local economy and climate resilience. However, the intention is to provide solutions, tools, techniques and evidence that can be used more widely beyond Plymouth and the UK.

Green Minds aims to put nature at the heart of decision making and inspire a new wave of citywide investment in nature-based solutions. This means fundamentally challenging people's attitudes and behaviours towards nature: how we think about it; how we engage with it; how we work with it. It is about changing mindsets and behaviours to give natural infrastructure higher priority and foster a management approach that works with nature rather than against it or for it.

Working in partnership, Green Minds is testing a broader, systems approach to:

- inspire people to connect with nature through delivering rewilding and nature-based projects on the ground that increase habitats and species diversity;
- experiment with different delivery and management methods and endeavours that support community stewardship and green enterprise, creating 'green mindsets';

- use science and creative digital tools to make nature visible and exciting;
- evaluate project impact and communicate learnings in innovative and creative ways.

#### Partnership

Plymouth City Council  
 University of Plymouth  
 National Trust - charity  
 Devon Wildlife Trust - charity  
 Real Ideas Organisation CIC - SME  
 The Data Place Ltd - SME  
 Plymouth College of Art

## EXECUTIVE SUMMARY

Green Minds is a social innovation project that aims to test rethinking nature as a solution, not as a problem, creating green mindsets which put nature at the heart of decision-making. It was developed in response to the need to plan high-quality green and blue infrastructure for Plymouth communities that maximise the benefits for health and wellbeing, social value, biodiversity, the local economy and climate resilience. It delivers small scale rewilding interventions on public green space to test new stewardship models, digital and virtual communications and develop new ways of working for urban land management professionals and policy-makers. By adopting a collaborative approach, GM partners are working together on how to connect to nature and how to live, engaging as many people as possible to address the challenge in those areas.

The 2 key questions around which the project was built were: 1) How we can give agency and voice to living non-humans? and 2) What can we learn from this to influence our practice within the urban rewilding agenda?

The theory of change that GM is working to demonstrate and promote is that urban rewilding helps reverse the biodiversity crisis, provide high quality, natural spaces to help solve urban challenges such as flooding, air pollution, and health and wellbeing.

Being an innovation project, partners aim to capture and review the impact quickly, and input learning into the programme. From the methodological point of view, the activities followed the action-research approach, seeking to understand and improve the world by changing it in a cycle of data collection, reflection, and action.

The guiding principles of the project are: 1) System approach of land management and decision making; 2) Fundamentally changing our attitude towards nature; 3) Expand our leadership across the city and beyond and 4) Work with nature to build leadership across sectors.

The project sites, key themes and opportunities for participation are:

### **1. Strategic City Park - Central Park**

- Sustainable Urban Drainage (SUDS) Project
- Future Treescapes
- Digital and on-site engagement and interpretation

### **2. Derriford Community Park/Poole Farm**

- Habitat restoration and rewilding approaches to land management
- Nature-based learning –including volunteer and engagement programme based at city farm
- Cycle/footpaths to support discovery, enjoyment and exploration of the site

### **3. Nature-based enterprise –led by Real Ideas Organisation to build businesses that benefit wildlife and people, focused in 2 more deprived neighbourhoods (Devonport and Stonehouse)**

### **4. Urban Trees and Rewilding Corridors**

- Greening grey corridors with trees and wildflowers to increase wildlife connectivity, supporting biodiversity and climate resilience

## 5. Saltram Countryside Park –led by the National Trust to restore nature networks

To date, the project's biggest impacts have been through the beaver reintroduction at Derriford Community Park and action for insects.

Building on Devon Wildlife Trust's Beaver Project Pilots in the Tamar headwaters and River Otter, permission was granted for Plymouth City Council to reintroduce beavers at Derriford Community Park. The main success points from the reintroduction are outlined below:

- good communication before, during and after the beaver release (including a short film that had 126,000 views on Facebook, first week)
- power of media to engage a wider audience
- role of a charismatic species in the natural management of a flooding area as well as for raising awareness and support regarding nature-based solutions and rewilding
- a sense of pride and ownership developed by the people involved which was key to success

The 2 specific key challenges are the ongoing maintenance and staff/volunteer resources in an urban environment and the monitoring of the beavers and of their ecosystem.

In the case of the action for insects the project responded to Covid related opportunities. The main successes were:

- capitalising on Covid to carry out a city-wide reduction in grass cutting, including operational staff briefing and training
- the effective online awareness raising, inviting participation eg Action for Insects webinar; Take Action for Wildlife and Rewilding Network events
- the correlation with the national #NoMowMay campaign to raise awareness and invite pledges.

Next steps for action include:

- Citizen Science and volunteering opportunities
- Engagement of artists to bring wildlife to the fore and start conversations
- Mapping rewilding network action and 'how to' rewild workshops
- Increase wildflower areas and rewild of 'in between spaces'
- Pesticide-free trials in our streetscape
- Further increase Plymouth wildflower areas

The main challenges corresponding to the action for insects were the persistence of preconceived ideas favourable to traditional urban nature management models and respectively the use of visual cues to care.

All the overarching challenges identified at the initiative level were already anticipated and addressed with agility so that up to the present none of them affected the project success chances and the best use of resources was ensured.

## HOW THE PROJECT FITS IN THE POLICY CONTEXT AT THE EU, NATIONAL AND REGIONAL LEVEL

Climate change and the need on the one hand to limit it as much as possible and on the other hand to best adapt to the new conditions are among the main challenges of our society. Therefore, related objectives have been agreed at international and European levels and nature and biodiversity are more and more present at the core of urban development policies. The EU Covenant of Mayors for Climate & Energy - launched in 2008 and gathering local governments voluntarily committed to achieving and exceeding the EU climate and energy targets - is

explicitly promoting the use of green and blue systems the same as the EU Strategy on Green Infrastructure. Furthermore, the sustainable land use and nature-based solutions (NBS) is one of the 14 thematic areas of the Urban Agenda, while the EU Biodiversity Strategy 2030 sees NBS as a key element of sustainable urban development. Additionally, the Covid pandemic making people aware that access to nature is crucial for well-being, has rendered NBS approaches and projects like Green Minds more relevant than ever.

Plymouth is the biggest city in the South West peninsular with a population of 263,100 people, estimated to rise to 300,000 by 2034. It is a waterfront locality with more than 30% greenspace. However, managing green space in England is not a statutory function for local authorities. Moreover, increased pressure on municipal government budgets has reduced the amount of funding and investment into greenspace, which has led to a decline in green space quality. Currently, 50% of Plymouth's greenspaces do not meet quality thresholds although residents in poorer areas use local green/blue spaces less frequently. In addition, Plymouth's green/blue infrastructure is owned and managed by multiple organisations that have traditionally not worked in partnership.

Budget cuts have also resulted in a much reduced staff resource and loss of specialist knowledge within the city's green estate management. Since 2012, 20% of the green estate workforce has been lost. With continued pressure on the public budget, the quality of local natural infrastructure could further decline, fewer people will use it and the cost of reinstatement will increase. Beyond the lost value and increased costs, and also the most important in this equation, it is the fact that the progressive deterioration of the urban environment negatively affects people's health and wellbeing.



more than 30%

green space

50%

of Plymouth's green spaces do not meet  
quality thresholds

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National and international research shows that these challenges are also common to other geographic areas. Therefore, Green Minds team aims to provide solutions, tools and techniques that can be used more widely beyond Plymouth, and enable the achievement of the European objectives regarding urban health and climate change prevention and adaptation. This initiative is the result of a decade work on nature-based actions and corresponding policies, pulled together for sustainable land management in Plymouth. As the MUA, the City Council of Plymouth, is a large landowner in Plymouth with an essential role in the configuration of related policies, Green Minds has the potential to generate extensive impact, acting as a lever for starting to change the perception of urban nature.

Green Minds adopts a system approach trying to bring in new partners and develop integrated strategic planning. As the project coordinator, Mrs. Jemma Sharman states:

it is not about what we do as a City Council, but also how we work with different professionals in the city, planners, engineers, landscape architects, community groups and how they also put nature at the core of their decisions.

By trying new approaches and taking risks with urban challenges, the Green Minds partnership is promoting an essential paradigm shift in the understanding and management of urban nature and wildness. Green Minds considers nature as a stakeholder and supports more positive attitudes towards it and strong connections of people with it. The project is focusing on urban rewilding viewed as a forward-looking activity that aims to reduce the level of control by humans, allowing the autonomy of non-human living actors.

Originated in North America, traditionally, rewilding is about restoring natural processes to create rich natural habitats and reintroducing key species in large wilderness areas and there are lots of different examples across the world. Green Minds is innovating by applying this in the urban context, looking at different opportunities in smaller spaces, to deliver rewilding at different spatial scales and intensities. Evidence suggests that urban areas can be hot spots for biodiversity and provide key sites for threatened species.

The Green Minds philosophy is based on the urban nature socio-theory. The core methodology of the project is the Appreciative Inquiry used to gather information-rich narratives from stakeholders helping to identify management needs and opportunities. Complexity management and the organisational theory are substantiating the practical model for building new co-stewardship structures linking sustainable land use planning with day-to-day management.

## CURRENT STATUS OF THE PROJECT IMPLEMENTATION

The official launch of “Green Minds” took place in October 2020 between 12th and 20th under the title “Green Minds – Making nature matter in Plymouth”. Given the particular context of the pandemic, the few in person events were complemented by numerous online activities that took the form of interactive webinars. Adapting to online events allowed the participation of a much larger number of people than in normal conditions and facilitated a very good promotion of Green Minds. These exchanges enabled the effective adaptation of the project vision and delivery depending on the feedback from participants. Furthermore, the launch engaged different organisations and individuals that were not usually among the traditional nature audience.

The roadmap of the project was summarised in a short [clip](#) uploaded on the [project website](#) and used for the promotion of the Green Minds vision and activities.

Since the beginning of the project there was a lot of engagement work done in terms of communities and other professionals, focused on the five key themes and corresponding investment sites chosen as innovation test beds:

### 1) Rethinking an Urban Park - Central Park

Central Park is a typical traditional urban park with a mix of formal and informal areas, open space, playing pitches and more tranquil and secluded semi-natural spaces. It is the city's largest formal park at 94 hectares, very animated and frequented by different categories of users. It is the test bed for solutions related to water management (flooding issues and sustainable urban drainage), as well as to building more resilience in terms of treescape (related to climate change and diseases of native trees in the UK) and for trails of different species and approaches to our urban treescape. The idea is to re-imagine ‘Friends of Parks’ to create an inclusive, diverse stewardship model in a heritage park.

On a high plateau, the park suffers from drainage problems, hindering public access and contributing to downstream flooding. A SUDS system of swales and ponds sensitive to the historic context of the park will transform drainage problems into an asset that improves biodiversity and supports sensitive interaction with



wildlife and water. The intention is to convert a traditional drain into a sustainable gravel drain, filtering water and carrying it towards a new swale into ponds, enhanced by native planting. The existing dysfunctional pond will be replaced by a network of three linked ponds retaining mature trees and delivering necessary attenuation volume.



Central Park map, Plymouth City Council

Digital and on-site engagement activities were organised. Therefore, the main questions were: 1) how to use digital technologies to connect people with nature, and 2) how to work with the community around the park for a hands-on experience.

### Treescape experience

The initially named “Arboretum for the Future” activity planned here was rebranded as “Treescapes for the Future” in order to make it more relatable to a wider range of the community and other stakeholders. PCC in collaboration with DWT and other key stakeholders such as Plymouth Tree Partnership, Plymouth Orchard Network and Food Plymouth started to design the tree planting scheme. “Treescapes for the Future” highlights existing mature trees as well as creating a city showpiece for climate resilient tree species suited to the local landscape and trees that will improve drainage. Five areas were distinguished within the park as testbeds for different treescape nature-based solutions and will be linked through on-site and digital interpretation and engagement to support nature connections. The intention is to develop local knowledge, to create ownership and maintain the site aspirations beyond the life of this project.





Treescape overview, Plymouth City Council

This approach will allow:

- Opportunities to deliver tree planting and natural improvements that relate to the wider vision in the park masterplan (which was developed with community consultation).
- Response to new opportunities that have arisen to inform planting since Green Minds bid was written, such as the discovery of a rare white-letter hairstreak butterfly being found as having a strong-hold in the park, which link to remaining elm trees, that appear to be resistant to Dutch Elm Disease.
- Response to emerging and spreading tree diseases such as Ash Dieback and strategic links to DWT's Saving Devon's Treescape project
- Opportunity to engage the wider community in the park's treescape, not just one specific area. The project will incorporate a larger area and be a much richer project with further benefits for people and nature.

## 2) Derriford Community Park

This comprises a city farm (unique site in Plymouth) and woodland, operating as a land management training and broader educational centre (but still in its early stages of development). Currently, it is a wilder place with no open access. Derriford Community Park is a strategic greenspace project with the ambition to become a highly valued environmental, social and educational asset, a resource for the people of Plymouth and a regional destination for environmental learning. Key issues include how to animate the site through engagement volunteering programmes (such as creation of new Devon hedge banks; wildflower meadow creation; tree planting etc.) and community activities; and how to support habitat restoration in an urban greenspace. DCO aims to develop a community managed model for land-based education in a large new park and city farm, which is financially sustainable.

Work has begun on engaging stakeholders through a Project Steering Group to develop a small and transferable scale urban rewilding project initially focused on the introduction of beavers to an enclosed site in the Bircham Valley. The investment will provide site infrastructure to establish a population of beavers in the Community Park, equipment for monitoring the impacts on the natural environment, an education, interpretation and viewing lodge and the development of monitoring tools to provide an immersive experience in a prehuman adapted environment.

A major milestone for the project/DCP was the first Eurasian beaver reintroduction at the end of 2020 and of a second one in January 2021 as a natural flood management and biodiversity enhancement measure (Beaver Fever!). This attracted a lot of attention and motivated people to engage in wider rewilding/nature issues. More details about this are provided in the article [“Green Minds – rewilding people and places”](#)



Beaver release into Derriford Community Park, photo credit: Chris Parkes

Future phases will look at investment into site infrastructure, ecological monitoring and interpretation hardware and software around other keystone and charismatic species introductions. This would potentially include water voles, cranes, large herbivores, terrestrial and freshwater invertebrate species.

### 3) The Green Enterprise in Devonport/ Stonehouse neighbourhood

The Green Enterprise in Devonport/ Stonehouse neighbourhood is focused on innovation through social enterprise models in green and blue spaces. Devonport/Stonehouse is one of Plymouth's most deprived neighbourhoods, with less than average GBI. The pilot here will demonstrate how its GBI assets can be enhanced for biodiversity and climate resilience, but also to support social enterprise. The neighbourhood's coastal location brings an important additional dimension to its asset base.

Here the idea is to test how community businesses can enable a more nature-based enterprise approach in that area, ensuring better outcomes for citizen health and wellbeing as well as for biodiversity. The question is if going beyond the neutral effect, can businesses have a positive effect on the natural environment? The intention is to create greater community ownership, improved management and social enterprise activity across public green space and public sites. As the UK's first Social Enterprise City, there is strong culture of social enterprise, where many buildings, streets and heritage assets have been subject of successful community-lead development.



Combining this challenge/opportunity of socio-economic need and a successful track record of community led regeneration, Real Ideas will deliver an action research process to develop and implement a set of new, redeveloped community led green spaces across the neighbourhoods.

Since the beginning of the project, the mapping engagement has started with mapping public spaces, ecological data, local assets/builds, community groups/businesses and key data around health and economics. Based on this mapping, a cohort of community members and sector experts are now undertaking a co-design programme, including management of these spaces. Based on the co-design process, a set of sustainable capital interventions, new social enterprise activities and ways of work will be put in place.



Devonport Pollenize Apiary, Photo credit: Plymouth City Council

#### 4) urban trees & rewilding corridors in the NW neighbourhoods

Here the theme is a personalised approach to engaging individuals in a city-wide challenge regarding urban green and the connection of natural spaces through street scape and across the grey areas. Some of the connection elements might be verges, some urban trees, but also 'in between spaces' yet to be defined. One of the questions is if more weeds can be allowed across pavements so to provide habitat corridors for invertebrates. Furthermore, Green Minds are working with local stakeholders to define how living walls could connect key habitats for wildlife. Green Minds is interested in building nature recovery networks that could be replicated across the city and wider areas. Since the beginning of the project small volunteer group events took place, where the local community was encouraged to propose and participate in various rewilding activities, for example in the preparation of soil for seeding to take place.

Across the City there are over 30,000 street trees, 100s of hectares of woodland including ancient woodlands and many veteran trees. Plymouth's recent Tree Canopy Cover Study revealed that although the city has an average of 17 per cent tree cover, this amount varies across different areas: Budshead has 25.3 per cent tree cover but Devonport has only 5.8 per cent. This urban forest suffers from poor maintenance and underinvestment, and uneven distributions. Some neighbourhoods benefit far more than others. Trees play an important role in wildlife connectivity and strategic plantings will have significant biodiversity benefits. A Plan for Trees has been collaboratively developed (PCC, Woodland Trust, Plymouth Community Homes, Plymouth Tree Partnership, Plymouth Open Space Network and the Tree Council). Green Minds will enable targeted interventions in key areas to demonstrate the value of trees for society and wildlife, their role in renaturing the city, and in climate resilience. Investment is made to promote, protect, repair and enhance the tree resource in selected neighbourhoods, strategically enhance wildlife corridors in the city and thus boost the social benefits derived from them (such as urban cooling). From the methodological point of view, this operation is reflecting the Green Minds philosophy: collaborative approach with a co-stewardship ethos, working to change mindsets to see the true value of trees.



Small volunteer group event in the NW neighbourhoods  
Credit: Plymouth City Council

Urban rewilding is explored as an opportunity to transform people's relationship with nature, regarding cities as more than just human habitats. According to Green Minds philosophy, environmental actions are not imposed, but cultivated in response to feedback from the natural world. Urban rewilding is understood as a forward-looking restoration of ecological processes, and the aim is to reduce the level of control by humans allowing the autonomy of living non-human actors to become the focus of restoration. The idea is to shift from management for nature to management by nature, which does not require the removal of humans or radiation of cultural landscapes and can happen at different spatial scales and intensities.

The main actions taken in this area are the mapping of current wildflower areas and further action prone spots and a crowdfunding campaign to raise awareness and money for wildflower planting. The campaign emphasized the role of wildflowers for maintaining biodiversity, as life environment for insects, but also for people, enabling crops, purifying air, attractive landscape, so contributing to physical, but also to mental health. A combination of rational and emotional appeal was adopted together with a proactive attitude. The most uncomfortable questions were anticipated and there were prepared the right answers technically and scientifically substantiated (forming the most frequently asked questions section) and able to remove reluctance and motivate people. Furthermore, the campaign made use of intensive digital tools and social media (many short clips prepared to communicate the key moments of the project and raise interest in Green Minds).



## 5) Nature Networks at Saltram Countryside Park

Saltram Park is a large property of National Trust (a big charity landowner in the UK) in Plymouth. Up to now, it was managed in a more traditional way for visitors and with tenant farmers. The work here focuses on restoring ecologically rich habitats, linking them and promoting connection with nature. Saltram and its neighbouring landscapes are planned to be strategically integrated, improving biodiversity and access management across three separate landholdings.



Saltram Countryside Park. Credit: Plymouth City Council

This operation will contribute to National Trust strategy in delivering its Land Outdoors and Nature ambition through partnership working and support of the Green Minds initiative, and so to play its part in protecting and improving natural environment – soils, water, and wildlife.

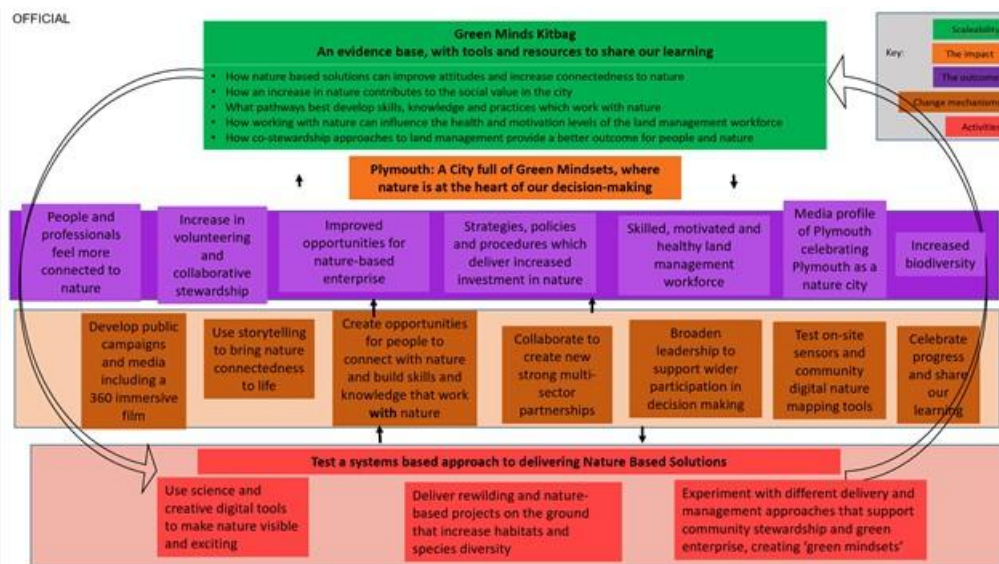
This investment covers three main project areas that align with Green Minds work packages.

- Community Orchard: Research, design and deliver a large community orchard adjacent to existing historic restored orchard site. It will deliver a defined priority habitat managed in a low intensity way. It will include a building which should accommodate a practical workspace for daily operational use and a hub for formal / informal training and learning as well as a place for supporting land based community projects.
- Rewilding the old A road: removing the old metalled road and reinstating a corridor for nature and recreation, and strengthening connection to Harwick Woods (Woodland Trust).
- Dell restoration planning: research, plan and design for a thoughtful and significant conservation/restoration project balancing wildlife interest with the potential for enhanced access and considerable visitor enjoyment and participation.

The initially planned fourth area, Plympton Cemetery natural landscaping, has been removed from Green Minds given the high risk that it might not be completed within the timescale of the project. However, the long-term aim is still to connect the cemetery to the wider Hardwick Woods site, applying the Green Minds rewilding approach and project learning to the site landscaping. Potentially the Plympton Cemetery landscape design process could still be initiated within the Green Minds project timescale. Rather than linked to a neighbourhood management forum approach, this investment will demonstrate a more strategic integration of different landholdings (of PCC, NT, and Woodlant Trust) to test and demonstrate co-stewardship at this level.

Due to the Covid pandemics, most of the in-person meetings were replaced with more frequent online events. The partnership meetings are taking place each month. These regular occurrences allowed a better calibration of the project approach and structure.





Green Minds Theory of Change, Credit: Green Minds

Among the remarkable Crosscutting / Transverse activities taken over this period, the participation in “The Nature of City Festival “ worth to be mentioned as an excellent exchange opportunity with a worldwide community of persons animated by similar subjects and objectives. Some of the main aspects discussed on this occasion there were:

- How do we use citizen science and digital technology to record species diversity, for sensing wildlife?
- How do we make sure the quality is good enough we can show changes in our management practices?
- How can we capture some of the more hidden wildlife?
- How to build our rewilding approach so that to build more with less costs?
- Water catchment contact and the social investment opportunities
- Community engagement
- Pesticide free success
- How do we change our practices to recognize nature agency?
- How do we look at cultural engagement and different people’s engagement?
- What nature is and what urban rewilding is ?
- Co-management with the local community group
- The rights of nature in the work we are doing
- Connect different groups

## Overarching challenges identified at the initiative level

All the overarching challenges identified at the initiative level were already anticipated and addressed with agility so that not to affect the project success chances and ensure the best use of resources to achieve the highest overall impact in the given circumstances.

## Table of overarching challenges

Challenge

Observation

#### Leadership for implementation

Challenge level



Green Minds has a collective approach leadership, which is quite a novel model presenting a high level of risk. However, up to the present, the MUA, Plymouth City Council, has been successful in involving all partners in the decision-making processes so that to ensure a reinforced sense of collective responsibility and the best use of individual knowledge and skills. Special attention is given to the leadership of the various activities beyond the project implementation, referring to leadership in nature, collaborative stewardship, and nature enterprise zones. The leadership for implementation has been proficiently delivered up to the present. Now the specific challenge at the core of Green Minds is to build and promote appropriate models of urban nature collaborative stewardship and nature-based solutions governance.

#### Smart public procurement

Challenge level



The public procurement rules in place in the UK are clear and very efficient, so this is not a real issue for Green Minds. Key aspects, like social value and the use of local suppliers, are already integrated. The procurement team has been involved since the early stages of the project contributing to the development of a multidisciplinary network of people and entities supporting the various activities. In this sense, the only difficulty encountered by the project was related to the Covid staff freeze which delayed the recruitment, but without dramatically affecting the project implementation. A shift of involvement was done as an adaptive response to this temporary issue.

#### Integrated cross-department working

Challenge level



This represented a challenge in the early stages of the project as not all departments were already used with this kind of continuous collaboration integrated with an overarching long-term vision. Initial reluctance and difficulties of cooperation between various units were reduced through adapted communication and attention provided in key moments. The context of the Covid pandemics reinforced the awareness regarding the importance of nature, making people more interested in the project and willing to contribute to the building and implementation of a shared related vision.

#### Participative approach for co-implementation

Challenge level



GM is working with local community but also with different professionals. The ambition was to widen participation as well in terms of decision making for a democratic public administration of green areas. This advanced participative approach has been supported by the adopted leadership and communication practices. A tailor-made engagement programme has been conceived based on the stakeholders mapping and website and social media analysis, with the aim to balance structure with freedom. A campaign officer has been employed and workshops were organised asking people about their needs and triggers possibly motivating them to take action. This exploratory process helped structure a dedicated network and learn more about people expectations, wishes, priorities, minimum levels of acceptance, and readiness to contribute; about what is already happening and how people would like to be involved.

#### Monitoring and evaluation

Challenge level



Measuring change and change perceptions of what is a management tool is a complex issue. However, up to the present this did not pose a problem and given the skills of the partnership, this should not be a capital challenge also from now. The monitoring of the impact of GM is structured on 3 axes:

- Evidencing change in knowledge, wellbeing and attitudes to urban nature
- Action research around the establishment and process of creating new co-stewardship models
- Improved habitat and species biodiversity at investment sites.

#### Communication with local partners and beneficiaries

Challenge level



Intrinsically related to leadership and participation that it supports, communication is at the heart of the project. Bidirectional communication was always encouraged, organised through multiple exchange opportunities engaging people into a collaborative endeavour. This approach allowed partners to learn what was important for each interlocutor when referring to urban nature and rewilding and then adapt the message and proposals according to their needs and expectations. In order to help even the less vocal people participate, many types of activities were organised like focus groups, interviews, volunteering opportunities, workshops, webinars etc.

#### Upscaling

Challenge level



GM refers to a switch of attitude and an approach that needs to be captured. For the impact of the activities and success of the project it is essential that policies and changes are shared beyond the limits of the city. However, the fact that the delivery partners are beyond just local scale, the upscaling of the innovative solutions should not be a capital challenge.

## ANALYSIS OF THE MAIN PROJECT SPECIFIC CHALLENGES AND LESSONS LEARNT

During the preparation phase of the project there were identified two overarching challenges, namely:

- Plymouth's green/blue infrastructure is owned and managed by multiple organisations that have traditionally not worked in partnership and
- Budget cuts have also resulted in a much-reduced staff resource and loss of specialist knowledge within the city's green estate management.

Since the beginning of the project, the challenges faced were mainly related to stewardship, ownership, data visibility and use, administrative competency and Covid pandemic generating the recruitment freeze and imposing the adaptation of the activities for online engagement.

Pool Farm is a built-up area with a large green space in the middle where the beavers have been introduced, which is a unique endeavour. At the North of that city farm, there is a big housing development with a huge road project over the top of the site, both representing important challenges. They imply a huge loss of trees and efforts were made to save and protect this green space. Some 4-5 years ago, PCC has been able to negotiate with those developers, to support the wildlife improvement. The idea was to enhance the biodiversity through a



development contribution negotiation system that exists in the UK. At the moment, the City Council is holding that land and that came with the exceptional opportunity to take this rewilding approach to a large greenspace (that wasn't previously accessible to the public), but also reorganise it as an education and volunteering base. As the city council does not necessarily want to own huge pieces of land difficult to manage, in the long term the aim is to transform it into a form of community trust. The process related to the beaver release has taken about 3 years of negotiations to obtain the necessary national level approvals, but also to convince the other services and departments in the local administration, like the engineers that helped with the flood defence consent, to accept this approach.

As the Green Minds coordinator affirmed:

One of the big lessons about rewilding is about letting go, about not knowing what the end solution would be, but trusting that nature will come up with a solution. It is very hard when working with engineers say we do not know how these beavers are going to manage this water catchment, but we do know from all this evidence that they will, but we cannot model that exactly in the way we can model a concrete pipe.

However, unlike concrete pipes, beavers can adapt over night the flood management system, which is extremely beneficial when overflow events are more and more frequent and unpredictable.

Beavers cannot stand the sound of running water, so when it rains heavily, they immediately build more dams to slow the water down, which is a perfect example of nature-based solutions. But this challenges an engineer used to work in a linear mode, to trust innovative approaches knowing we cannot predict how, when and where the beavers will build their dams. Another specific challenge was related to the beaver's welfare as the reintroduction was done in an urban context with busy roads. Therefore, a big enclosure was built with a special fencing system allowing other animals already present in that urban area to move through, but stopping the beavers.

These were technical challenges, but Green Minds also had challenges related to the Covid pandemic such contractor/suppliers restrictions during the first lockdown. Therefore some of the City Council street staff were deployed to work on some of the green estate management. These were persons mainly from the grass cutting team, who enjoyed the process of delivery and learning about wider nature-based work. Staff learnt new skills, build relationships with the community park team and also became more connected to nature. The Streets staff are passionate and proud of being part of the beaver reintroduction – and have shared this widely with friends, family and through social media. This included being filmed as part of BBC national television series, WinterWatch. There was a huge emotional reaction related to the beaver release for those involved in the reintroduction, and the wider Plymouth community. An important social media upscaling was noticed on local government pages, an unexpectedly high enthusiasm replacing often negative debate and complains. Moreover, a lead politician attended the release as well as other senior managers.

A lot of groundwork was done at the beginning as part of a research project into social perceptions of the beaver release eg. talking with people about the reintroduction of the beaver, how that would feel, what were their reactions and their concerns. This contributed to the positive feedback together with the communication joining the release itself and follow up. There has been a large interest and uptake of beaver-related volunteering. Now the question is how all that excitement and passion around this charismatic species can be effectively capitalised to accept and connect with wider urban rewilding initiatives. For example, get people accept more weeds on the side of their roads or that things can be less tidy or less pesticides used in the streetscape so that to enable a richer environment. On the other side, a high level of interest in volunteering was manifested, people willing to help. Volunteering engagement and participation across other rewilding approaches are really important, allowing not rely just on paid staff.

An additional challenge is derived from the uncertainty of such an innovative approach regarding ecosystem regulation, as nobody can be 100% sure how this experiment is going to work out in a small urban area. The hydrology, the ecology and the water quality are being now monitored as well over time and compared to another nearby water course very similar in conditions, but having more hard engineering approach to control experiments and see what learning will have over the next 3 years and beyond.

The Covid crisis is still a big challenge, but also provided some unexpected opportunities, like the development of the "Taking action for insects" operation. Over the past years, PCC has been constantly looking for solutions to increase the number of wildflowers across the city. Small scale campaigns were done to get people on board, but in 2020 this action really took off. This was partially because of Covid hindering regular grass cut actions that the Council does. The grass cutting schedule was produced, but it was obvious it could not be followed. Therefore, a strong public campaign was organised on the value of wildflowers and pollinating insects to the city life. Besides, staff on the ground was supported to understand why things were changing, so when public came spoke to them, they could actually give some information and explain why the grass wasn't being cut as usual. A side effect was that by better understanding the process, when asked what they were doing, instead of answering "we are cutting grass", local public workers said "we are habitat managers". Similarly to the story of beavers, they started to have a

sense of pride, talk about what types of insects they have noticed and gained enthusiasm.



We are all habitat managers. Credit: Green Minds

This action also capitalised on a national campaign called NoMawMay, engaging schools and communities, taking photographs, competitions and fund raising campaigns. Normally people do not like give money to public authorities because they are already paying their taxes. But this time, they were willing to donate to create more wild meadows and lots of people came on board. This strong involvement was also encouraged through creative online sessions offering various motivating opportunities, when usual activities were very much restricted, and people were in need of engagement and community.

Webinars were delivered on how to take actions for insects as an individual either at own level player or in own garden, small scale actions people can take simply and at no cost. Additionally, a rewilding network was set up to help understand people priorities and the balance between cities and nature that rewilding can bring, build a shared vision and enable people to contribute in their own way when they aim to. There was a strong focus on how to support people collect data and share that, again engaging schools, but also families in informal learning. People showed enthusiast about getting involved in practical activities, like planting, seeding, including caring of local spaces.

There are further challenges especially related to perceptions about what public space should look like. Thus, efforts are being done to change opinions and support appreciation of wildflowers and more wild-scapes. In order to bring forth wildlife and get a critical mass of involvement allowing a change of perception, new volunteering opportunities are being provided based on the needs and wishes expressed, also focusing on artistic approaches. In this sense an interesting work was done with the Rebel Botanists by chalking on pavements the names of plants they see on pavements and paths that people would normally not notice.



Rebel Botanists Action. Credit: Plymouth City Council

Building on this participative approach, the intention is to increase the wildflower areas also capitalising in between spaces, not just wide parks and large green spaces and stir a sense of collective responsibility as habitat managers, whether we are living, working or visiting places. Following requests from a community group who want to do their own weeding in their neighbourhood, pesticides-free streetscapes are going to be trailed in the coming period.

This Covid year has seen a change in how people are perceiving, connecting, and valuing their natural environments. Enjoying nature has often been the only thing one could do for much of this period. Hence, people started valuing this experience much more highly and realising it is beneficial for their own health and own being. Furthermore, there is a kind of rediscovering, quite timely with Green Minds so we have got a pivotal point to capitalise on. The ecological crisis is gaining more recognition everywhere, and in the UK, there was a big review about the economics of uncertainty emphasising that the ecological crisis is fuelling an extreme risk on uncertainty for the economic situation and wellbeing. Therefore, the system approach taken with Green Minds (across different disciplines and elements of land in Plymouth) seems particularly appropriated in this challenging context. At an organisational level, this is translated through the efforts made to provide opportunities of connection to nature, but also to add different disciplines and groups so that to create a rewilding movement in Plymouth and kind of support that gives nature that voice. Attention has been given to how to make it easy for different stakeholders to participate whether this is taking place into their own space, professionals making a decision that is much more supportive of nature or whether this is how we respond to nature in our own policies and strategies. PCC tries to keep the right balance between enhanced opportunities and freedom and control, facilitating exciting rewilding creative opportunities, while not getting out of control. As an example, the action proposed by Rebel Botanists would not have been accepted some 5 years ago as technically, in the UK, to chalk on pavement is illegal. But actually, it is not something permanent, so given this particular context, PCC was more open and supportive to such initiative. Referring to this, Zoe Sydenham, Natural Infrastructure Projects and Partnerships Manager at PCC summarised the learning they had from this experience: "This is a small example, but I think it worth taking more of these approaches and that is important how we as a partnership remain open to new ways of working, we invite all this learning in, we become playful and creative. So, one of the things we are talking about is actually do we have the kind of our culture of collective action to look at all these new conversations across the city about what nature means, what does rewilding mean? Let's look at creative, playful interventions and opportunities and kind of start some of those conversations to see what works [...] We are really interested in how we work as a programme and how we not just increase the natural vibe, connection to nature in our city, but also how are supposed people to take more collective ownership of spaces, so we are talking about stewardship process for which themes are working across." The rewilding network is one of the examples, as people are looking at nature corridors across the city, the network is supporting that as well as having more collective ownership over rewilding processes in Plymouth.



Taking Collective Ownership of Spaces. Credit: Green Minds

## SUMMING UP THE MAIN ASPECTS

What has worked well until now was principally related to the connections developed between people that resulted into a strong resilient partnership and new relationships with different organisations. While imposing



significant restrictions and adjustments, Covid came up with several opportunities such as the digital involvement and the positive shift in favour of rewilding practices, allowing the engagement of a wider audience. The adaptation of wildflower and grass management was easier accepted due to the broader shift about how much people value nature and relation with nature and pesticide free trials were possible to organise. Moreover, there were many people wanting to get involved in nature volunteering in Plymouth and a positive change has been noticed regarding the statute and attitude of local grass cutting staff.

Despite the challenges of each organization, change on the ground was still delivered, and it is really important that it is visible (like beaver reintroduction and urban trees campaign) and accompanied by the communication development and visual identity of the website.

Digital engagement was certainly a great opportunity, but, being the only approach possible over a longer period, a broader challenge raised about advancing relationships more in depth. In terms of communication, the main question that remained is how GM team builds on the attraction of the charismatic beaver reintroduction, to expand a wider perception of rewilding and rewild in-between spaces.

The systems approach taken for Green Minds also meant a challenge and an opportunity of allowing this creativity between space and the need to get things done. The main issue was how experiment can be done while allowing tangible change, making the most of the links across the partnership and building a cross-sectoral support.

Since the start of the project, the Covid pandemic was the key issue from which resulted most of the challenges. Things could not be done on site and long-time planning became difficult because nobody could be sure what situation and the government guidance would be. Some of the missing audiences for green space could not be reached as usual, so adaptations were needed. More digital tools were used, which came with their limitations as well. Furthermore, on-site events had to be condensed in a very short time, depending on the limited restrictions easing. All missed actual physical connection with nature and the “real” world. Now the question is how to meet nature but also how to bring along wider stakeholders and audiences to have those real-world opportunities as well. GM partners are also concerned about the impact of the project, the long-term durability of the quantitative and qualitative changes and how this can be captured. In this sense, attention is paid not just to the results themselves, but also to the process of achieving them, that is considered equally important.

Among the main learnings there are to be mentioned:

- the awareness regarding the role of nature and its connection with health and wellbeing ;
- the ability to gather all the different evidence and feedback the project quickly so that to be able to adapt deliveries, which is related to the action-research approach;
- the acquaintance with digital engagement that can be also capitalised for in person meetings.

Some changes became necessary, for instance an immersive film has to be produced looking at evidence from learning on relationship with nature instead of having a series of immersive experiences on the ground. Furthermore, preparation has to be done for the time when more shared site visits and knowledge sharing activities will be possible, so that to capitalise as much as possible on what has been already achieved in terms of knowledge, methodology, structures etc.

Connections with wider stakeholder group need to be continued and extended so that to increase the opportunities to put nature at the core of decision making. A leadership in nature programme has been put in place. In the coming period the partnership will extend the approach from the Central Park to the whole city and work on the knowledge sharing and scaling up also beyond Plymouth, in other urban areas, based on the audience segmentation and targeting that has been already started.

Capturing the impact on wellbeing and increased knowledge on nature remain essential for understanding people’s attitudes, connections with nature and changes over time.

To build a sense of collective responsibility to care for green/blue spaces, GM partners decided to focus on:

- Providing opportunities for connection to nature and others –independent, group and virtual
- Accessibility -making it easy for stakeholders to participate
- Responding to community opportunities as they arise -not being too prescriptive
- Being open to new ways of working –inviting learning, innovation and play!

For me as an expert, despite the fact that the pandemic prevented me from visiting the project site, it made me interact more directly with all project partners. I have assisted project meetings and participated in most events,

keeping somehow closer to the project and its main stakeholders than in normal times and accompanying the quick shift from face-to-face events to online ones.

## COMMUNICATION & SOCIAL CHANNELS

- Project website: <https://greenmindsplymouth.com/>
- Facebook: <https://www.facebook.com/NaturePlymouth>
- Twitter: [www.twitter.com/NaturePlymouth](https://www.twitter.com/NaturePlymouth)

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Nature based solutions

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See on UIA website

