

New Roots

An Evaluation Report for St Ann's Allotments 2023

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Acknowledgements

The report authors would like to thank the St Ann's Allotments staff for their support in the production of this report in particular Amie Pickering and Nicola Hinton. Thanks also go to Rhys Furlong for providing support with development of the report. Finally thank you to the participants who provided their time in completing the questionnaires and taking part in the focus groups and interviews.

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Executive Summary

The University of Derby was commissioned to provide an evaluation of the New Roots Programme at St Ann's Allotments. A mixed methods approach was adopted which comprised both questionnaire data and focus groups and interviews.

Participants completing the questionnaires generally had high levels of nature connectedness, and high scores for the importance of looking after nature, with average scores being towards the upper end of these scales. However, for wellbeing and loneliness, scores were much closer to the mid points of these scales. It is unfortunate that sufficient numbers of participants did not complete the questionnaire again at the second time point, so it was not possible to assess if any changes had occurred after engaging in several sessions at the allotments.

Interviews and focus groups conducted with a total of nine participants and overall feedback was very positive. Six main themes were identified including:

1. Heritage and Allotment Benefits
2. Benefits of Being in Nature
3. Sense of Community
4. Learning and Skill Development
5. Barriers and Challenges
6. Future Directions.

Benefits of the project

- Raised awareness of St Ann's Allotments with local people
- Providing an escape from everyday life
- Recognition of the impact of nature for wellbeing
- Providing a sense of community and breaking down barriers
- Opportunities to support others and reduce isolation
- Opportunities to learn new skills, and learn about conservation

Barriers and challenges were also expressed with the weather and seasons acting as a potential deterrent for some but not all. Similarly, time and availability were also seen as potential barriers to engagement with the project by some participants.

For the future, participants highlighted the importance of continued delivery and potential expansion of the project activities.

Recommendations

- Increasing awareness of St Ann's Allotments within the local community
- Increasing engagement with underrepresented groups
- Engaging with local schools
- Continuing to bring more plots and woodland areas into use
- Continuing to support the Community Payback Scheme

In summary feedback relating to the project was extremely positive and the benefits to both the participants and the allotment site were clearly identified.

1. Introduction

The links between spending time in nature and wellbeing are well established with a variety of research demonstrating a beneficial relationship between connecting with nature and health and wellbeing (e.g., Howell, et al., 2011; Nisbet et al., 2011; Pritchard et al., 2019). In a review which examined the various benefits associated with interacting with nature, Keniger, et al. (2013) suggest that interacting with nature can lead to a range of psychological benefits such as improved emotions, mood, behaviour, increased self-esteem, and a reduction in stress. They also noted social benefits particularly where the nature-based activities could facilitate social interaction.

Allotment gardens offer an opportunity for individuals to experience such benefits and Van den Berg et al. (2010) suggest that through opportunities for stress relief and the chance to socialise, allotments can provide health and wellbeing benefits and where allotments are embedded within the community, there is enhanced potential for social inclusion (Fieldhouse, 2003). It is also possible that allotments can help to build a sense of community by bringing people together with a common interest (Firth et al., 2011), helping to strengthen peer relationships (Kim et al., 2014) and alleviating social isolation through increased opportunity for social interaction (Freeman et al., 2022). Allotment gardening can lead to empowerment through the shared learning of new skills (Cumbers et al., 2018) and through providing the opportunity to learn new skills, can also lead to improved self-esteem, mastery, independence and belonging, all very relevant to increasing employability prospects (Fulford and Thompson, 2013).

St Ann's Allotments were awarded £109,900 through the Governments Green Recovery Challenge Fund to support New Roots – a flagship conservation and training programme which aimed to connect people with nature; support nature conservation and restoration; and provide sustainable employment opportunities. Resources were targeted towards connecting people with nature through the development of several new roles including apprenticeships and placements. New Roots also developed training and employment opportunities for local people who might otherwise find it difficult to access nature and engage with development opportunities. Specifically, New Roots aimed to benefit disadvantaged groups, local residents of the St Ann's area and ex-offenders. Nature conservation and restoration was also provided by the programme, and working with partners, has worked towards developing 75 acres of inner-city green space into woodland and wildlife lettable allotment plots.

The University of Derby Nature Connectedness Research Group was commissioned to evaluate the New Roots project for the participants involved and more specifically, to explore the impact on the element of New Roots focused on offender management through the Prison and Probation Service with the Community Payback team. In total, 258 People on Probation serving Community Sentence or Suspended Sentence Orders, managed by Nottinghamshire Probation service have visited the site and engaged in working outdoors at the allotments. Between December 2022 and February 2023 there have been 1288 attendances to St Ann's Allotments by the people on probation and they have carried out community service for 7887 hours with most individuals attending at least 5 sessions with many attending more than this. The Community Payback teams have been involved in a variety of activities from site maintenance e.g., plot clearance and hedge maintenance, through to workshop

preparation, apple picking and pressing, and site conservation tasks such as tree and hedge planting, building and restoration work.



Figure 1. Coppicing work

Through Community Payback work, plots are being prepared for future lets, as the people on probation have undertaken site clearance and preparation, and hedge-laying all of which help to enhance the areas, improve visibility and create a more welcoming environment for new tenants. A community plot has also been established with support of the community payback work.

This evaluation reports on a number of key individual factors which the project may impact on such as nature connectedness, mental wellbeing and loneliness. The direct experience of a range of people involved in the New Roots programme is also explored.

2. Evaluation methodology

The evaluation uses a mixed methods approach, combining a quantitative questionnaire to measure a number of key variables, along with qualitative data collected via focus groups and interviews. The evaluation methodology was co-created with staff from the Renewal Trust and the Nottingham Probation Service and ethical approval for the research was granted by both the University of Derby Health, Psychology and Social Care Research Ethics Committee and the Integrated Research Application System (IRAS) which provides ethical review and approval for a range of Health, Social Care and Community Care research projects in the UK.

Quantitative methodology

An online questionnaire was used to capture data relating to nature connectedness, Wellbeing, Pro-Nature Conservation Behaviour and Loneliness. Demographic details including age, gender and ethnicity were also obtained.

Nature connectedness was measured using the Nature Connections Index (Richardson et al., 2019) which includes 6 items measured on a 7-point scale ranging from “strongly disagree” through to “strongly agree”. It includes questions such as “I always find beauty in nature”.

The Office for National Statistics recommended measure of loneliness uses 3 items to measure loneliness and an example item is “How often do you feel left out” measured on a 5-point scale from “none of the time” through to “all of the time” (Snape and Martian, 2018).

Mental wellbeing was measured using the 14 item Warwick and Edinburgh Mental Wellbeing Scale (Tennant, et al, 2007). This scale uses a 5-point scale from “none of the time” through to “all of the time” and an example item is “I’ve been feeling relaxed”.

A single item question developed by the authors was used to measure “How important is it to you to look after nature where 0 = not at all important and 10 = extremely important.

Questions to find out how much time participants spend in nature during the previous two weeks were also included.

Participants taking part in the New Roots project were asked to complete the questionnaire by staff and volunteers at St Ann’s Allotments. The survey was accessed using a QR code or link which took participants directly to the survey. If participants did not have access to a smart mobile device, they were able to access the survey through a New Roots iPad/tablet. Participants were asked to complete the questionnaire at the start and the end of their time at the allotments, however only two participants provided data at more than one time point, meaning it is not possible to provide a comparison of these measures for the purpose of the evaluation so only a descriptive analysis will be undertaken.

Qualitative methodology

A qualitative methodology was also developed to allow for a deeper exploration of the participants experience of taking part in the New Roots programme. Interviews and focus groups were held with both participants on the Community Payback programme and members of staff supporting them. Interviews were carried out with two people on probation, a supervisor of people on probation, three volunteers/consultants and three members of staff involved in the project (Manager, project coordinator, and project admin).

The three interviews with the people on probation and a community payback supervisor were carried out in person at St Ann's allotments. Two telephone interviews were carried out and one online focus group, the focus group comprised of three staff members and one volunteer. The interviews and focus groups were conducted following a semi-structured interview schedule which allowed participants to reflect on the impact of the project for themselves but also more widely for the allotments and the community. Participants were asked to provide consent for the use of the interview to facilitate the evaluation of the project and agreed to the recording of the interviews/focus groups for this purpose. All interviews were recorded and subsequently transcribed verbatim to facilitate analysis. At the end of the interview/focus group participants were reminded about the purpose of the study and how the data would be used, they were also reminded about their right to withdraw data following the interview. All names of individuals included in the analysis have been replaced with pseudonyms.

Analytic approach

The analysis adopted an inductive thematic analysis approach, following the six steps of thematic analysis recommended by Braun and Clarke (2006, 2021). Initial familiarization with the data was undertaken through the completion of the interview and transcription. Initial codes and points of note were identified, from this point codes were refined, and interviews further analyzed. Themes were selected which best highlighted the key points participants noted regarding the project. The analysis was written up with illustrative quotes used to provide examples for the themes.



Figure 2. Volunteers working on Visitor Centre Garden entrance "creating a welcoming place"

3. Results – Quantitative analysis

Participant details

In total 38 participants provided completed questionnaires that were suitable for analysis although not all participants responded to each individual question. Of the participants, 23 were male, 13 were female, 1 preferred to self-define and 1 preferred not to say. Participants had a mean age of 39.33 years (sd=11.74). Based on partial postcode data, 7 participants (18%) lived in the St Ann's area, with a further 28 participants (74%) living in Nottingham City/Nottinghamshire. 3 participants (8%) lived outside of Nottinghamshire. Most participants were in employment with an overall total of 30 participants (81%) being employed. Full details of employment status are shown in table 1.

Table 1. Employment status

	Number	%
Employed full-time	19	50.0
Employed part-time	11	28.9
Self employed	1	2.6
Unemployed	6	15.8
Retired	1	2.6
Total	38	



Figure 3. Team Building day with Nottingham City Council Carbon Neutral team

Participants were also asked how they had heard about the New Roots project at St Ann's Allotments. In total 46 responses were received as some participants had heard about the project through more than one route. Full details are shown in table 2.

Table 2. Details about how participants heard about the New Roots project.

	Number
St Ann's Allotments publicity	3
New Roots Programme Coordinator	1
Allotment visitor centre office	2
Other staff (e.g., probation officer, site staff)	15
St Ann's Allotments Ecoworks/Framework etc.	3
Social media	2
Word of mouth	3
Noticeboards	0
Support worker/Employment officer	4
Green social prescribing programme	3
Work Volunteering event/Experian	12
Total	48

Participants were also asked about what type of activities they had engaged with during their time at St Ann's Allotments and details are shown in table 3.

Table 3: Activities undertaken by participants (completed Evaluation)

	Number
Community Payback Scheme	22
Volunteer Sessions	10
Green Skills Training	5
Community Events	4
Ecology and Wildlife Surveying and Assessment	1
Infrastructure Creation/Building Restoration	0
Woodland/Wildlife Plots	2
Renewal Trust Network Events	1
Total	45

Time in Nature, Nature connectedness and Importance of Looking After Nature

Participants were asked about how much time they spent in nature during the previous two weeks along with how important it was to them to look after nature. They were also asked about how connected they were to nature.

Time spent in nature during past 2 weeks

On average participants spent 4.41 days ($sd=3.99$) or 24.74 ($sd=26.85$) hours in nature

Importance of looking after nature

(0-10 scale, high score = high importance)

Most participants thought it was very important to look after nature (Mean = 8.76, $sd=1.87$).

Nature Connectedness

(1-7 scale, high score = high nature connectedness)

Levels of nature connectedness were relatively high (Mean = 5.60, $sd=1.60$)

Mental Wellbeing and Loneliness

Participants were also asked questions about their mental wellbeing and loneliness.

Mental Wellbeing

(Scores range from 14-70, high score = high wellbeing)

The mean for mental wellbeing was 49.70 ($sd=8.04$) which is higher than the mid-point of possible scores.

Loneliness

(Scores range from 3-15 with higher scores = higher loneliness)

The mean was 7.29 ($sd=2.55$) which is below the mid-point for the scale.

As only 2 participants provided data at a second time point it was not possible to carry out any analysis to explore changes in these values as a result of taking part in the New Roots programme, however the qualitative data provides a very valuable insight into the experiences of participants and staff associated with the programme.

4. Results - Qualitative analysis

Overview of the qualitative analysis

The analysis identified six themes in total, four key themes relating the benefits and impact of the project and two themes related to challenges and future directions. Within each of the key themes, a number of sub-themes were identified. All participants were asked to sum up their involvement in the project in three words, these are summarized in Figure 1. The three words used to describe the project were all predominantly positive and were summed up by one person on probation who described it as “*The greatest thing*”.



Figure 4. Word cloud depicting key terms participants used to describe the project or their involvement with New Roots

Theme 1. Heritage and allotment benefits

Within Theme 1 - Heritage and allotment benefits, several sub themes were developed including:

Making a difference

Conservation efforts – unique site

Opening awareness

Sub Theme: Making a difference

One aspect which was evident throughout the reflections on the project was the extent to which New Roots had made a physical difference to the allotments and their usage.

One example discussed frequently was the creation of the starter plots which was successful in *“opening up the space”* and for the community overlooking this site it was *“great to see it being used”*. This success was attributed to *“unpaid work, they did a hell of a lot of work down there turning it around”*. Through the work in clearing and preparing the site, 20 plots had now been let and it was described as creating an environment *“like a community orchard with [people] talking to each other, getting advice and borrowing”*. The noticeable difference made to the site through unpaid work was noted as it allowed people on probation to

“come through and actually contribute and see the transformation of that as well, those plots turning into to plots from a blank landscape of rubble, essentially to an actual working allotment garden”

For those on probation the sense of making a difference was seen as important and helped people on probation to be engaged, the supervisor reflected that

“some of the projects they have really got engaged in, we built a brick wall down at the starter plots, they loved that and you know, were like ‘Wow’”

This was echoed by the people on probation themselves who described experiencing how *“cutting things down to then see things grow, it all helps”*. There was a sense of making a difference with what they are doing which for them provided *“the satisfaction, its satisfying. We do something and, you know that will stay for a while”*. This seemed to help the people on probation to connect to nature with another reporting how they noted *“Nice trees, some trees are like a hundred years old, more, so it’s very nice to know that something that has history you can plant down”*

Sub Theme: Conservation efforts – unique site

Whilst the noticeable physical differences were important, there was a strong sense of recognition about the importance of the site from a conservation aspect.

One of the people on probation noted one of the biggest benefits of planting trees to be helping to *“put air back into the city”* and they viewed their role as being important to help the *“environment and stuff like that”*. However, the benefits to the unique site and the maintenance and development of the site were further elaborated on by volunteers and staff in the programme.

One of the expert volunteers shared their thoughts about the site,

“I think the site is unique and the choice of use of the site between structured, formal horticulture, orchards, community engagement, pottery, willow, there’s that many different facets to it.”



Figure 5 & 6 Participants engaging in tree survey and orchard harvesting

With so many facets to the site, there has been evident engagement with conservation but there was also a sense that whilst conservation is at the heart of activities, the impact will take time beyond the scope of the New Roots project.

It was highlighted that it is *“hard to cram everything into a relatively short period of time, because woodland management plans are normally 25 years”*. Other volunteers also described the importance of maintaining and plotting the *“heritage fruit trees”* and *“coppice management”* as aspects that have been started within the project and can be continued beyond. These were described as being the foundation for future works.

So whilst the development of the woodland management plan and the production of the baseline plan was completed in alignment with the project aims it was acknowledged that aspects such as the *“heritage fruit trees and GIS [Geographical Information System] students....hadn’t fully materialised”* during the timespan of the project but are included in plans for the future.

Sub Theme: Opening awareness

Across all groups there was a shared amazement at the scale of the site and the position within an urban area of deprivation. In those participants discussing their experience with the allotments, the discovery of the site was mentioned by all.

Both people on probation interviewed expressed their surprise at the existence of the allotments with one stating *“It’s nice. I’ve been living in that area like 10 years or longer, but never knew it was here or what offered”* and another *“I didn’t know something was here like this. If I knew that I would of come earlier, but I didn’t know”*. Whilst this might have been expected for those on probation, even the volunteers expressed similar thoughts with one indicating

“I moved to Nottingham in 1992 and I had no idea it was there, and I’ve worked with trees every day in my life since then”.

Staff also expressed how visitors on site taking part in training or workshops *“are quite amazed that it’s so close to the city centre and just the sheer kind of size of it as well”* and once aware of it *“quite a lot of people have been quite keen to come back to be able to explore it a little bit more”*.

Additional benefits associated with using the allotments included facilities at the visitors centre enabling facilitation of the workshop, for example one workshop leader described how they would

“usually teach this in the middle of a field, in the middle of nowhere, and with a tent or something like that. So to have those facilities on hand it was really good”

highlighting how they were still able to teach heritage conservation and management in the center of a city. This surprise expressed about the diversity and nature of the site was echoed by others involved, for example the probation supervisor described it as

“strange, as you are near the city. It’s lovely. It’s like you are in the middle of the woods, every day.”

Figure 7. New views of the city from wildlife terraces (base plot)



This was echoed by volunteers who highlighted that

“normally you're talking about a 5 or 10 mile trip out of town to find a woodland somewhere that's big enough for you to get lost and cope with yourself”

yet this was what St Ann's provided. This highlighted the importance of site and how New Roots had not only increased awareness of the allotments it had facilitated access for participants from diverse groups. This has resulted in the sense that people were more aware of the site and this was reflected by staff who noted that *“the center is a lot busier than what it normally is and it's normally a quiet center. But yeah, since the project it has been quite busy”*.

Theme 2. Benefits of being in nature

Through the reflections on the project a further theme was identified in relation to the benefits that participants and staff had observed through being in nature, as one volunteer described it being the *“Green-Buzz”* they felt working on the allotments and how this led to them being *“hooked”* to the volunteering.

The benefits of being in nature has been captured in two sub themes;

**An escape from the world
Important for wellbeing**

Sub Theme: An escape from the world

It was evident through responses that the unique situation of the site in an urban area brought benefits for participants in a number of ways. For the people on probation it was that they were relaxed there with one reporting *“I'm resting here. It's nice”* and for another reporting that being on the allotments *“calms me down”*. The probation supervisor elaborated further on this mentioning how the nature of the site allowed those on probation to feel they have escaped into nature

“I've had guys come off other sites onto this site, and then they want to come back on this site. And I think that's quite good and they just love the outdoors and you know, you are out in the middle of the woods. And it's like camping for the day”.

And through being in nature there was a sense of enjoyment that was reported, as the supervisor described

“They all seem to enjoy that part. Being out in nature, looking at wildlife and some of the projects we have done they really get engaged in it...Some especially like the wildlife on site, there's quite a lot of birds of prey and buzzards and it's beautiful.... And it's beautiful and they, they always talk about that”



Figure 8. View of Gentleman's Avenue

The people on probation echoed this as they mentioned they enjoyed noticing nature, for example *“Sometimes walking the woods, you notice different stuff...it's nice”* another really enjoyed the wildlife and talked with excitement about how the *“The best thing about it is the animals like hedgehogs and I haven't seen the deer. I hope I see it. I've seen the fox”*. There was also a sense of reflection with those on probation drawing comparisons with childhood experiences of being in nature with both of them reflecting on how it was reminiscent of times they enjoyed. One mentioned

“I used to, back home when I was a kid I used to do garden. Like cutting, like I was about six years old, seven years old with my granddad when I came here, I had never done. I was just working or like going college”

Sub Theme: Importance for Wellbeing

As participants discussed their involvement on the project there was a reference to the importance of the allotments in supporting both physical and mental wellbeing. This was evident from the reference to how spending time in the allotments allowed individuals to *“feel less sad and decompress through life's stresses and strains”*. There was also repetition of how the nature and environment provided *“calm”* and allowed individuals to *“calm their thinking”*. For one volunteer the benefit of spending time in the allotments was likened to therapy.

“When it's temperate and there is birdsong and sunlight, and you know green leaves around me then there is therapy in that... I can settle my thoughts, I learnt that there”.

Beyond the individual benefits the New Roots project was described as opening up opportunities for numerous individuals who might have struggled with mental health or physical difficulties. For example, the starter plots were described as great for those with additional needs because *“being down there helps them with like, if they've got any problems, they're not scared to be on their own plot”*. Open days and connections, through New Roots, with local mental health groups have also opened doors for their service users and potential to future engagement with the allotments.

Whilst acknowledging there is a strong relationship between physical and mental health, some participants specifically mentioned the physical benefits from the project. For those on probation it *“It can be hard work what we do and some of them really, really enjoy it a lot”*, and even those who *“aren't as fit as others and they struggle a little bit”* but they find a way through it,

“and we do a lot of walking and that's quite nice it just keeps them fit and healthy”

For other volunteers they described how the allotments provided vital exercise

“Well, the exercise the exercise is massively important to me because I exercise to an intensity in the allotment much more than any exercise class would get me to do. No competitive sport would get me to do that because I’m not interested in those things, but when I’m up in the garden, I will do far more exercise than I would anywhere else”.



Figure 9. All year round outdoor activities and volunteering

Theme 3. Sense of community

Across the interviews there was a sense of a community and consideration as to the wider benefits that this brought to those involved with the project.

**Two sub themes were identified within the Sense of Community theme:
Breaking down barriers
Supporting others/tackling isolation**

Sub Theme: Breaking down the barriers

Through discussion about the implementation of the project there was a sense that barriers were broken down and individuals were working alongside each other or engaging in activities within the allotments. This was mentioned several times in relation to the engagement with probation groups where it was described as beneficial in terms of the engagement of those involved but also achieving tasks set.

“I enjoyed the fact that I was occasionally having different people arrive in the garden who were extremely different to me, in my demographic, and you know I could relish and enjoy that. One day I was up there with probation services, you know, and it turned out to be a riotous and raucous and funny occasion and we did actually get some work done. So you know, I was able to enjoy the diversity”

This was also noted by the probation supervisor who described the welcome that the group generally received from other allotment holders

“you know, a lot of the allotment holders let us come in and have a look around and see what they’ve done”

And how this helped to create a sense of a community atmosphere. For some of the people on probation, this has really allowed them to flourish within the environment and was evident when the supervisor reflected on how

“Quite a few come in very quiet and then when they’ve been there a while then they are the life and soul of the party on site which is mad to see”



Figure 10. Probation discussing visitor centre garden tasks

Sub Theme: Supporting others/tackling social isolation

For volunteers and staff there seemed to be a shared appreciation for the benefit of feeling *“part of something as well as having the opportunity to do the actual gardening work”*, and through New Roots there was an opening up of the site which related to providing an opportunity to *“meet new people all the time”*. This was particularly referred to with the success of the starter plots and how this had created a strong sense of community through bringing the area back into use,

“It’s good for people who want to, like, engage with others. You’re not like in a garden where it’s just you or you’ve just got heads. You know you’ve got, it’s like a community down there”

The importance and effect of the sense of community, was noted within the groups of people on probation. They noted the importance of the *“camaraderie”* within the groups and how and for some has an impact beyond their involvement in community payback.

“everyone is laughing and joking and getting stuck in. And I’ve had people on my group befriend each other and be friends outside of community payback which is great”

Staff involved in the project described how they had noticed the impact of the building of the relationships through the project and the impact that had on the confidence of people on probation.

“It facilitates the building of the relationships up with the PoPs [people on probation] and the supervisors on site, that’s been nice as well. Like when the PoPs come in, you know, before they’re dead quiet. But now we’ve started talking and building that relationship, they come in. They’re quite chattier.”



Figure 11. Volunteers developing visitor centre experience and improved access to gardening for volunteers

The wider benefits from breaking down the barriers and facilitating the sense of community were captured when one expert volunteer described how this allows the door to open to conversations which can lead to wider impact and changes, but it is particularly facilitated by the environment and “sense of community,”

“You can decompress by just having a relaxed conversation with people and hopefully you get that little sense that you know maybe it will help some people get encouraged to move further with stuff. That's quite nice to just be that little seed which can lead to germination”

The benefit of helping pass on knowledge and the buzz around the allotments seemed to be beneficial to volunteers, visitors and staff with one staff member mentioning,

“I've just enjoyed the energy. I've enjoyed the energy of having people coming through and people's eyes lighting up when they learn something new, or they see something that's new.”

For the people on probation, they reported how they really “like the teamwork” and how “everyone works together, not separate” which for them was a real benefit and for another this was a factor in why they viewed their community payback as a positive, they described

“here calms me down and I talk to them and talk to everyone and that's why it's like it's an improvement in my life”.

In fact, they attributed this to why, for them, being able to talk to other people on probation and staff at the centre was a key component in their enjoyment, “If you like, you talk to everyone and that's why you maybe love it or enjoy it more”. In this case alongside the benefit noted to being in nature and the environment, this person on probation described the longer impact, with their plans to continue volunteering on the site beyond the completion of their hours.

“I'll miss everyone, miss everyone....Because that's why I've put my name on volunteer to come back to meet them.”

Theme 4. Learning and skill development

Learning and skill development were key aims for the New Roots project and the success of this across several areas was evident.

Within the Learning and Skill Development theme, three sub themes were identified:

**Skills for conservation
Training benefits
Opening doors**

Sub Theme: Skills for conservation

Beyond the individual benefits the New Roots project was described as opening up opportunities for numerous individuals who might have struggled with mental health or physical difficulties. For example, the starter plots were described as great for those with additional needs because *“being down there helps them with like, if they’ve got any problems, they’re not scared to be on their own plot”*. Open days and connections, through New Roots, with local mental health groups have also opened doors for their service users and potential to future engagement with the allotments.

Across the project there were the direct skills for conservation that participants in the workshops picked up. One of the workshop leaders described how *“they definitely picked up skills they’ve never tried before. Many of them have always wanted to have a go but never had the opportunity to do so”*. This in turn provided wider benefits in allowing participants to develop skills which can be employed to maintain or enhance the ecological benefit for the allotments and further afield.



Figure 12 Greenspace (GSP) event

For example, one workshop leader from hedgerow management described how;

“the ecological benefit from it as well, you know not only did we go on to manage the hedgerows onsite, but quite a few of these have gone on to do their own management of the hedgerows and it can have profound effects on the ecology of an area from what they’ve done and what they’ve learned”



Figure 13. Hedge laying and coppicing



Figure 14. Probation Supervisors mastered skills in both by attending training sessions

Alongside the practical skills there was the knowledge which these sessions imparted and allowed them to make *“people aware of the ecological benefits, that’s involved in proper hedgerow management”*.

Sub Theme: Training benefits

The project provided opportunities which provided wider skills and experience that could be taken forward by participants. Some of these were more directed towards conservation, for example from the workshops there was scope for any *“enterprising young person who want to take it on, such as there is a lot of potential there”*, the leader was even *“hoping I’d get an apprentice through this so if I hear back from anybody, we will find out”*. However, the benefits extended to general grounds maintenance. The probation supervisors describe the range of skills that the people on the community payback scheme might have developed.

“skills they’ve learnt, we always show how to use the told correctly and we’ve learned them how to lay turf, stonewalling, bricklaying. We’ve done all sorts of different outdoor stuff.”

Through the project the probation supervisors were trained in skills which they could then pass to the people on probation through their work. This was part of a ripple effect in enhancing skills and knowledge more widely so that they could *“go on and teach those [on probation] that’s how to do it as well.”*

The benefits extended further beyond conservation and outdoor skills, for the wider staff team there were additional benefits described, for example increases in confidence and ability to engage with a wide range of groups.

“I’ve just kind of think I’ve gained a lot of confidence just in terms of. Of meeting new people and and mixing with. Yeah, like a lot of kind of, you know, uh, different people from working with the PoPs [people on probation] to, you know, working amongst like vulnerable adults to our kind of weekly volunteers.”

Through the work on delivering the project it has been described as important for not only providing training but to also open doors for participants to take the next steps.



Figures 15 & 16. Restoring site infrastructure and heritage features

Sub Theme: Opening doors

For participants and staff across the project their involvement was described as the steppingstone for their next steps. The next steps varied across the individuals, for example for the people on probation as part of the community payback scheme, their involvement was described as potentially helping people to identify they have skills in outdoor work, for example the supervisor mentioned,

“I think it helps them find work and that coz they can do outdoor work then. You know and some have said they’d like to do that rather than sitting in an office”

This was echoed by one of the people on probation who described how they could see the community payback on the allotments providing the scope for them to go on and apply those skills to find a job.

“Doing like cleaning and cleaning garden, big gardens and they learn from it. When you are here you learn from it, you can get a job or put your name on website say, saying I clean gardens.”

For other people on probation, securing a job might not have been an aim but it has allowed them to discover an interest in nature and the environment, for some this has been evident with their plans for continued engagement with the site *“there’s quite a few interested in putting their names down for allotments on this site because they enjoyed it so much”*. In one particular case the supervisor described how it allowed a person on probation to develop their confidence and continue to develop this interest, and enjoyment;

“she’d never done that before and she started her own plot in her garden because of this, and yeah, she loved it”.

For staff it was evident their engagement had allowed them to develop the skills and the project was described as *“a large learning curve”* but from this there have been further benefits including informing future directions in careers. For the coordinator they described how through the project they, developed and understanding of what they will look for in future role, *“I don’t think I’d be happy kind of in a role where I’m. I’m just inside all day”* and how this has moved them into the next steps for beyond the project,

I’m waiting to hear back on this apprenticeship [woodland development officer]. I’ve applied for, but touch wood, if that goes successfully, that should involve I’m hoping a mix of inside and outside work.”

Theme 5. Barriers and challenges

Through the reflections on the project there were numerous benefits identified however understandably there were several barriers to be overcome and challenges to delivery of the project.

Two sub themes were identified within the Barriers and Challenges theme:
Weather and seasons
Time and availability

Sub Theme: Weather and Seasons

With the allotments being outside the impact of the weather and the seasons on engagement with the site and the project delivery. For the Probation group they used the site across the duration of the project which meant they experienced all weather and seasons. However, one aspect that helped with this was the shelter at their site and the access to the centre

“we’ve been in some pickles onsite, especially at the basecamp basically at the top of the allotments. We’ve seen snow, rain, wind, everything, we’ve had it all and we always have a bit of shelter, but we’ve got this lovely place [Visitors centre] to come to as well”

The weather and the seasons also had an impact on the tasks that could be completed during the project with one expert volunteer describing how *“seasonal variations, weather conditions and the availability of people to perform tasks it's a bit of a soup to work with”*. This coupled with the length of the project meant that it was harder to run and deliver certain workshops and activities, for example the GIS surveys need to be carefully timed and it takes seasons to rotate it was described how,

“you've got to be driven by season and weather specific surveys to develop a pattern of work that's then seasonal and being able to rotate. So, it's quite hard to cram all of that in”

So, activities like the heritage fruit tree surveys were *“limited to that June to August sort of time, but if there's any formal fruit instructions and stuff we need to see, ideally they're best seen through the autumn.”*



Figure 17. Access route through the site

And whilst the seasons dictated what should be offered when in relation to workshop and activities on the allotments it was reported that this impacted on the ability for individuals to engage in the sessions. Staff mentioned that the weather and cold impacted on people engaging in winter and how when running them in spring summer maybe other things, potentially their own allotments, take priority.

“But that could also be the seasonality things as well. Winter's, a really hard time to get people to engage in. Even if there were three workshops. Some of it was a bit disappointing in terms of tenants not taking up hedgerow management, you know, yet they all struggle with hedges.”

However, for some, particularly the people on probation, there was a feeling that the weather wasn't a barrier with one reporting *“I don't care about whether it's raining or sun”* and the other reporting the actually liked the rain saying *“I love rain when I'm working, like not heavy rain, but you know, like a misty rain. It's nice”*.

Sub Theme: Time and availability

The timing of the project and the length of time to complete the tasks was another barrier. The biggest issue was the start of the project, and with it running for eighteen months only one summer was contained in this timeframe. This was cited as a major barrier particularly in preventing further work with the assessments or some workshops.

“And I think that's the biggest learning curve for us in terms of we were acknowledging yesterday that this 18-month funding we had one summer 2 autumns 2 winters. So, learning that some of that work that we perhaps have we haven't done around the ecology assessments.”

There was also a reflection on how time was needed to ensure that allotment holders were engaged with the project and the wider benefits, there was some understandable resistance described as coming from the gardeners which with time could be more easily overcome.

It needed "to be a longer project to build that up with gardeners and to communicate exactly what we're doing and why we're doing it, that we weren't just going in. Because gardeners can be a bit skeptical as to why do you wanna come in my garden"



Figure 6. Green businesses were supported through New Roots, pictured Russell from Deadwood with Allotments Manager, Nicola

Availability and timing of the workshops and volunteer sessions was also described as a barrier to uptake. Although *"the courses were offered for free...so having a free one on their doorstep was quite welcome"* the level of uptake was lower than expected. The same was said to be the case for the volunteer sessions,

"It would have been nice to have maybe. A few more. A few more [volunteers]. But getting people, yeah, recruiting has been a bit of a bit of a difficulty and also just offering the time, we do our volunteers session on a Thursday and now on Monday and people don't have time in the week. So, you know just our availability in terms of doing that weekend work is a thing."

Volunteers might be limited in their time and those sessions might not have fitted in, as was acknowledged in the focus group a big factor is *"just people's time, I think, their availability, just a lot of people work 9-5, so they don't necessarily have the free time to do it in the week"*. This was also reflected when the people

on probation mentioned they wanted to continue volunteering and how they hoped they may be able to come down *"once a week, like at the weekend"*.

It was also acknowledged that although there were issues at times in having the expertise available there weren't easy answers because the aim of the project was to allow people to develop skills and learning.

"Yeah, there's definitely lessons learned in terms of the challenges of thinking that we could have people on board and not, but also that we didn't want to just bring in a company to parachute in either. That if you look at the New Roots, you know objectives, it was that we would develop people's green careers and knowledge-based learning. So, if we were to do it with just a company, a consultancy company that you bring in, we didn't want them just to come in and do the work and off they go again. It was about learning."

Theme 6. Future directions

With the end of the funded project in sight there was a sense that the project will have a legacy and have continued benefit to the allotments.

**Two key themes were evident, these were:
Continued delivery
Expansion**

Sub Theme: Continued delivery

On reflecting on achievements there was also the legacy of the project, with work being started within the project which will go beyond the funding. Specific tasks were discussed where the foundations have been built in New Roots, for example

The plot laps of the western terrace, so we're just we're just working through that putting the hedgerows back and things like that. There's still more work to be done on that... There's a work in progress with whoever takes on those plots, or whoever uses those areas.

There was a sense that the workshops and skills developed could also be put into use for wider benefit,

"there is a lot of woodland...which could be put back into management and benefit the site itself. For example, they have a hazel and willow coop which we did in introduction to coppicing course on. To establish seven or eight of those hazel coops would not only provide material for the allotments themselves, you know poles, peas sticks and all that for the allotments. You know the wildlife benefit would be massive."

To enable the continued delivery, volunteers were also keen for their input to continue in some way. They found the benefit either for themselves or in conservation that gives them "the bug" and as one expert volunteer described,

"There's nothing that's going to stop me helping because I understand the value of what you've got, and I think it's from. So like my perspective, I just think it's that important to keep going with it the support that I'm prepared to give will extend even if there wasn't a project here anyway."

There will also be the continued input from the probation service and community payback, this was described as a beneficial relationship established in the project which will be taken forwards,

"We definitely would continue to work with PoPs [people on probation] and that was our commitment with offering their supervisors the training. So the reason why we got them to do the coppice thing with us and hedge laying workshops and things is that they're learning as well as supervisors."



Figure 19. Exploring nature within the site – A first for all who attended the City Nature Challenge 2022

There was also a sense from people on probation that there was an interest in keeping their involvement going beyond their payback hours. One mentioned,

“I see it being like a hobby, Yeah, that it, something that hobby anyone has a hobby that you got. Your hobby, everyone has a hobby. Maybe I'll come down as my hobby like once a week. It's different here, yeah.”

Another was keen to stay involved and stated *“I'm when I finish my hours, I'm going. I'll ask (Supervisor) about volunteer or something”*.

Theme 2- Expansion

As the interviews and focus groups concluded there was discussion on what they would like to see in future developments.

There was a sense that there was more to be done on the site and a particular feeling that there was scope to expand with the Woodland plots,

“I think there's just a lot more, mainly at the Woodland wildlife plots, a lot more work to be done there...I think it would be really nice to be able to offer more areas

for people to explore that aren't tenants or aren't coworkers or aren't involved in the projects on site I think because you know we do get quite a lot of visitors that come to the allotment"

There was also discussion of being able to provide more opportunities for different groups,

"I'd like to see more provision for people who are time poor, financially hard up to have opportunities there"

"I'd like to see work with the local secondary school and tie it in with the young people, you know perhaps some intergenerational work. Where you have pensioners supporting or watering"

"Greater inclusion of under-represented communities. The Afro-Caribbean community used to have a huge presence in the 60's and this is lost now perhaps groups that are black led to avoid the feelings evoked with slavery and working on a White mans land."

"when we they never got the chance or opportunity with they are young or you know, even the young to get something like this, thinking it's nice"

Finally, there were some potentials to expand training mentioned.

"Maybe train the PoPs [people on probation] on power tools and stuff because at the moment we just use hand tools ...maybe get PoP's more involved a bit more in training courses and that [hedgelaying courses and site courses as well]"



Figure 20. Plant swap and sale

5. Conclusions

Overall feedback from the participants about the New Roots programme was very positive and the impact spending time at St Ann's Allotments has had for those engaged in the different activities as shown by the qualitative data was clearly expressed.

Participants completing the questionnaires generally had high levels of nature connectedness, with average scores being towards the upper end of the scale. How important people felt it was to look after nature was also clear from the questionnaire data. This was mirrored in the qualitative data. Many participants expressed how much they enjoyed spending time outdoors in nature and the positive benefits they felt they gained from that. Participants clearly valued working on the site and feeling that they were contributing to its upkeep and role as a valuable community resource. The development of conservation skills and learning how to look after nature was something that came through clearly in the discussions with participants.

The wellbeing scores from the questionnaire were close to the mid-point for this scale, indicating that for some participants, there was scope for improvement. The wellbeing benefits of spending time in nature came through clearly in the qualitative data with participants noting the way in which the allotments could offer an "*escape from the world*". The impact on both physical and mental health was commented upon, with participants noting the benefits of increased physical activity along with mental health benefits where spending time at the allotments enabled them to "feel less sad" and "decompress" with one participant referring to how spending time in nature at the allotments provided them with green "therapy".

Levels of loneliness reported in the questionnaire were around the mid-point of the scale, indicating that many participants did experience feelings of loneliness. The potential for the New Roots project to help address social isolation and increased inclusivity was highlighted in the qualitative data where the themes "breaking down barriers" and "supporting others and tackling isolation" illustrated how participants felt the project supported social inclusion, allowing opportunities for people to connect with one another.

The importance of the project for skills development and training came through very clearly. Participants noted how the project had enabled them to develop new skills in relation to nature conservation and also in building preservation in terms of a range of building related skills and for some participants, it provided them with motivation to find work in related areas in the future or to continue with volunteering at St Ann's Allotments.

In conclusion, this evaluation provides evidence that the project has been successful in delivering against several aims. Based on data from the participants who contributed, the project has supported people to connect with nature who might otherwise not have had that opportunity. It has enabled participants to develop new skills which in turn will support their path into employment and it has supported nature conservation and restoration of the St Ann's Allotment site, supporting the continuation of a valuable resource for the local community and user groups.

6. Recommendations

A number of recommendations can also be drawn from the feedback provided by participants.

Key recommendations include:

- **Raising awareness of St Ann's Allotments within the local community, particularly for underrepresented groups**
- **Explore opportunities to bring more of the site into use, for example through wildlife and woodland plots**
- **Continue to work with the Community Payback Scheme to continue the mutual benefits, to participants and in support of conservation**

Although many participants lived locally, several participants commented on their lack of awareness of the St Ann's Allotments prior to their engagement with the project. It is recommended that activities to raise awareness in the local community are prioritized. This has potential to enhance volunteering from the community, encourage people to engage with the various community group options provided and may also increase the number of local people applying for an allotment plot.

Increasing awareness and engagement with the St Ann's Allotments with underrepresented groups, particularly from ethnic minority communities was highlighted by participants, and ensuring that groups are led from within these communities was highlighted.

The potential to develop intergenerational engagement with the site is also a possibility, and establishing relationships with local schools, both primary and secondary could help to develop stronger relationships with the local community.

The New Roots programme enabled several plots to be developed and brought back into use, and the potential for more of this is recommended. The site has considerable areas of woodland suitable for coppicing and wildlife plots, and the feasibility of also bringing these areas into sustainable use should also be considered.

The benefits achieved from working with the Community Payback Scheme are clearly highlighted, for both the people on probation in terms of their health, wellbeing and skills development, and also for the restoration and maintenance of the allotment site. It is strongly recommended that St Ann's Allotments continue to work with the Community Payback scheme so that these mutual benefits may continue.

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8. Appendices

Appendix A: Copy of the questionnaire.

Thank you for agreeing to answers these questions.

Please create your Unique ID

The questionnaire is anonymous and so that we can match up your responses we need you to generate a Unique Participation Code. This code will be comprised of the last three letters of your mother's maiden name (or other memorable name) and the last three digits of your mobile phone number. For example, my mother's maiden name was Frost and my mobile number is 07771 456923 My unique code will be OST923

Q1 Please enter your unique code _____

Q2 What project have you been involved in at St Ann's allotments?

Q3 How old are you?

Q4 How do you define your gender?

Male

Female

Prefer to self-define (please state) _____

Prefer not to say

Q5 Employment status

Employed full time

Employed part time

Unemployed

Retired

Not seeking work or employment

Student

Carer

Other _____

Q6 How did you find out about the St Ann's Allotments project?

Q7 What is the first part of your post code? _____

Q8 How many days do you think you spent in nature over the past two weeks?
(garden, park, allotments, countryside) _____

Q9 How many hours days do you think you spent in nature over the past two weeks? (garden, park, allotments, countryside) _____

Nature Connectedness

Please tell us how much you agree or disagree with each of the following statements, by selecting the relevant box.

1-7 where 1 is completely disagree and 7 is completely agree

Q10 I always find beauty in nature

Q11 I always treat nature with respect

Q12 Being in nature makes me very happy

Q13 Spending time in nature is very important to me

Q14 I find being in nature really amazing

Q15 I feel part of nature

16 How important is it to you to look after nature?

0-10 where 0 is not at all important and 10 is extremely important

Wellbeing

Please select the option that best describes your experience of each over the last 2 weeks

1-5 where 1 is none of the time and 5 is all of the time.

Q17 I've been feeling optimistic about the future

Q18 I've been feeling useful

Q19 I've been feeling relaxed

Q20 I've been feeling interested in other people

Q21 I've had energy to spare

Q22 I've been dealing with problems well

Q23 I've been thinking clearly

Q24 I've been feeling good about myself

Q25 I've been feeling closer to other people

Q26 I've been feeling confident

Q27 I've been able to make up my own mind about things

Q28 I've been feeling loved

Q29 I've been interested in new things

Q30 I've been feeling cheerful

Loneliness

The following questions ask about loneliness. Please indicate how often you experience the following feelings by circling the appropriate response.

1-5 where 1 is none of the time and 5 is all of the time

Q31 How often do you feel that you lack companionship?

Q32 How often do you feel left out?

Q33 How often do you feel isolated from others?

Thank you for taking the time to complete these questions.

Appendix B: Focus Group/Interview questions

- 1- What did you think of the project?
- 2- How were you involved in the project?
 - a. What tasks did you undertake?
- 3- Thinking back, what aspects of the project did you enjoy most?
- 4- Was there anything that particularly surprised you about the project?
- 5- Which aspects did you not enjoy?
 - a. What needs improvement?
- 6- Have you noticed any benefits from the project?
 - a. In yourself
 - b. Your lives
- 7- How did you feel about spending time in nature?
 - a. Compared to before the project
 - b. emotions
- 8- How did you feel spending time with others on the project?
- 9- What will you miss most about the project?
 - a. How are you continuing to be involved?
- 10-What elements will you take away with you?
- 11-Can you describe any barriers to being involved in the project?
- 12-Anything more you would like to add?