

JUNE-NOVEMBER 2025

Nature connection and waste reduction

N NORTH
LONDON
WASTE
AUTHORITY



Project aims

1. To deliver activities that connect North London residents to nature and provide the motivation for participants to adopt pro-environmental and pro-nature behaviours, whilst delivering associated wellbeing and social benefits associated with nature connection.
2. Conduct surveys to measure any changes in nature connection and waste behaviours resulting from the activities.

Method

1. Partner with community orgs across North London to deliver nature-based activities
2. Design or identify activities that map to nature connectedness pathways
3. Advertise and recruit participants
4. Survey participants pre and post activity
5. Share survey data with University of Derby
6. Evaluate the impact of nature-based activities on nature connection, engagement in waste prevention behaviours and likelihood of adopting waste prevention behaviours in the future, health and wellbeing and environmental self-identity.

The five nature connection pathways*

Senses

Tuning into our sensory contact with nature heightens our experience of the natural world. This means noticing what we see, hear, feel, smell and taste and seeking opportunities to heighten those sensory experiences.

Beauty

Humans are hardwired to appreciate nature's beauty. To activate the beauty pathway, we can actively look for beauty in nature, take time to appreciate the beauty of the natural world, and share our experiences of nature's beauty with others.

Meaning

Nature is full of stories and symbolism that bring meaning to our lives – from our personal stories, through to cultural folklore, or the use of natural metaphors and symbols. By reflecting, sharing, and celebrating what nature means to us and wider society, we can nurture feelings of closeness with the natural world.

Emotion

The emotion pathway is an invitation to notice the impact nature has on our emotions and mental wellbeing, and to seek out nature to inspire feelings of peace and calm, joy, or wonder. Taking a moment to be with nature helps us feel better and feel closer to the rest of the natural world.

Compassion

Compassion for nature involves recognising the challenges the natural world is facing and taking action to help nature. By looking after nature, supporting the wellbeing of other living beings and the environment, and encouraging others, we can turn feelings of empathy into actions that matter.

**As defined by the University of Derby in [Nature Connected Communities](https://www.hubbub.org.uk/nature-connected-communities)*

Events mapped on to the pathways

Senses

- Herbal tea brewing
- Urban foraging/food walks
- Focused walks e.g. bat walks, tree walks
- Urban greening/gardening
- Outdoor sports (e.g. skating, running)
- Worm expo
- Apple pressing (Harvest/ Apple Day)

Beauty

- Pressed flower crafting
- Butterfly walk
- Cyanotype sun prints
- Nature-colour matching
- Nature Artwork exhibitions
- Poetry workshops
- Pollinator workshop (microscope + projector)

Meaning

- Floriography
- Folk music performances
- Poetry workshops
- Zine making workshops
- Tree walks
- Guided local area walks

Emotion

- Poetry workshops
- Zine making workshops
- Outdoor yoga/meditation
- Wellbeing walks

Compassion

- Litter picking
- Bug hotel making
- Seed-bomb making
- Butterfly walk/bat walks
- Urban greening/gardening
- Insect DNA mapping

*Many events map to multiple pathways rather than just one, and you will see some events repeated across the pathways. For example, a tree walk is at its core a 'senses'-based activity as one observes, feels and listens to trees and their leaves. This can be built on with 'emotion' if there is a wellbeing element, focussing on being in the moment, perhaps with forest bathing or meditation. There can also be a 'meaning' element, if histories and myths as well as personal stories are shared. The 'beauty' pathway can also be incorporated by using the surrounding trees to inspire photography or artwork.

Overview of events

An open blue notebook is shown from a top-down perspective. The right page is blank except for a single, pressed green leaf with serrated edges. The left page is partially visible, showing a map with labels like 'Highbury Copse' and 'Back of Centre'. The notebook is held by a person wearing a light blue shirt. The background is a blurred outdoor setting with green foliage and brown leaves.

Events calendar

A total of **108**
nature-based activities over the
project period offered to North
London residents to take part in
the research

Including **38**
activities organised or
co-organised by
Hubbub

Jun	Jul	Aug	Sept	Oct	Nov
Organised or co-organised by Hubbub					
- Herbal tea brewing x2 - Pressed flower crafting	- Foraging walk - Wild Food walk - Pressed flower crafting - Litter picking - Unearthed: power of Gardening Exhibition	- Poetry workshop - Wild Food Walk - Cyanotype session x2 - Litter picking - Zine workshop - Guided Tree walk x2	- Water art exhibition and river walk - Litter pick x2 - Bat Walk - Tree walk - Reflective yoga - Herbal tea brewing	- Online nature sessions x2 - Bat walk - Tree Walk x2 - Waterside mindfulness and poetry - Litter pick x3 - No headphones run - Creepy crafternoon	Indoor/outdoor planting x2 Plus 2x self guided online workshops accessible from Sept
Organised by partnering groups					
- Outdoor folk singing - Urban greening/ gardening x2 - Outdoor skating x2	- Butterfly walk - Outdoor folk singing - Intergenerational Day - Urban greening/ gardening x14 - Outdoor skating x4	- Pollinator Workshop - Bat Walk - Wetlands guided Tour - Outdoor stay & Play x4 - Urban greening/ gardening x2 - Outdoor skating x4	- Outdoor folk singing - Urban greening/ gardening x5 - Outdoor skating x4	- Apple Day - Insect DNA mapping - Bat walk - Harvest festival - Urban greening/ gardening x11 - Outdoor skating x3 - Wellbeing walk x2	Outdoor folk singing

The project in numbers

108

events and activities were delivered for people who live and work in North London to join the research

Partners such as The Garden Classroom, Octopus Community, Isle of Skating, The London Wildlife Trust (Walthamstow Wetlands), Fire Choir and the Islington Ecology Centre.

Partnering organisations were briefed on how to collect research data from participants

208

people completed the first survey

The events reached and were enjoyed by a larger audience than 208 surveyed people

Hubbub events including yoga, wild food walks, herbal tea and cyanotype workshops

86

Participants went on to complete the second survey

This equates to a conversion rate of 40%, and an 'attrition' rate of 60%.

Working with 17 partners to host and facilitate sessions



Methodology and Impact Summary

Methodology

- 86 participants completed a survey before their first activity and after their second activity. Participants received a £20 voucher for taking part
- The survey measured levels of nature connectedness, wellbeing, the importance of looking after nature, environmental self-identity, engagement with a variety of waste prevention behaviours and how likely they would be to engage in these behaviours in the future
- Free text questions included, What impact has taking part in the nature-based activities had for you?, Is there anything you plan to do differently in the future as a result of taking part in the nature-based activities? and Is there anything else you would like to share about your experience of the nature-based activities?
- The University of Derby analysed the data to understand the impact of the of the programme

**Impacts:
Free text
responses
identified 9
positive
impacts**

**New skills
and
learning**

**Better
mental
health**

**Connection
to place**

**Connection
to
community**

**Waste
reduction**

**Physical
health**

Giving back

**Connection
to nature**

**Inspired
creativity**

Identified impact categories	%	Quotes
Better mental health: participants report improved mental wellbeing	56%	“It is greatly soothing and helps me regulate.” “Much better for my mental health, less anxious.”
Waste reduction: participants outline actions they will take that reduce waste and desire to behave more sustainably	43%	“Even simple plants like herbs have histories. I am trying to grow my own and save money.” “I am walking more and enjoying more analogue creative activities instead of buying things.” “I am [...] thinking more about what I can do with food composting and [...] recycling.”
Improved connection to nature: participants feel closer to the nature around them	35%	“It has made me feel more connected with nature, paying closer attention to sensory stimuli.” “Realising that even living in a city how lucky we are to be surrounded by nature.”
New skills or learning: participants mention learning new knowledge or skills from the activities or events	32%	“I learn more about plants, taste new things, get to share some of my cultural knowledge.” “It has given me a wider knowledge of natural habitats and it’s [sic] wildlife”
Connection to community: participants report meeting new people, reduced loneliness and feeling part of a community	32%	“It has been nice to spend time outdoors with a group of people I didn’t know before.” “Relax me [sic] and make me feel part of nature and community.”
Giving back: participants express a desire to volunteer or give back to their community or nature	25%	“I’m more mindful about how I interact with my local environment and green spaces.” “It has made me more interested in giving my time and energy to nature.”
Connection to place: participants express feeling emotionally closer to the area they live and London	11%	“It has helped me to connect with other people and with my local area. I have enjoyed the activities and discovered new things.” “This has opened me up to more community based spaces in London”
Physical health: participants express improved physical wellbeing, like strength and fitness	10%	“I feel more strong... It has been exciting to see how working outdoors is an option.” “Taking part in outdoor activities... positively impacting on my physical wellbeing.”
Inspired creativity: Participants report more creativity and time for making art as a result of nature events	5%	“I have started collecting leaves and sketching them in a handbook.” “I will try and sketch more outside,”

The open text responses are led by what participants felt pertinent and important to share. The percentages are based on the 79 open text and unprompted responses.

Spotlight:

Nearly half (43%) of all participants who responded to the free text questions stated that they plan to reduce waste and behave more sustainably following taking part in the activities

Results suggest nature-based activities provide a catalyst for engaging in waste prevention behaviours in the future

Data Analysis:

There was a **significant increase** in participants intention to engage in four waste prevention behaviours following taking part in the activities.

These included:

- buying used household items e.g. Electrical goods/books/furniture
- composting or recycling household food waste
- taking steps to reduce household food waste e.g. using leftovers, meal planning, measuring quantities
- recycling household glass, bottles and tin

Participants reported a **significant increase** in recycling household glass, bottles and tins following taking part in two nature-based activities. However, participants engagement in other waste prevention behaviours did not significantly increase following taking part in the activities, but this is likely due to the short time frame in-between activities to action these behaviours.

Spotlight:
Just over a third of participants (35%) reported improved connection to nature after taking part in the activities.

These results suggest that those who care for nature are more likely to protect it by engaging in waste prevention behaviour

Data Analysis:

Although participants shared that they felt closer to nature after taking part in the activities and there was an upward trend in nature connection scores, there was **no significant difference** in nature connection scores following taking part in the activities.

Despite 56% of residents sharing positive impacts on their mental health after attending the activities there was **no significant difference** found in their mental health scores following taking part.

The data showed that participants' beliefs in the importance of caring for nature and their environmental self-identity **significantly predicted** engagement in waste prevention behaviour.

How are participants reducing waste?

Improve waste and recycling practices at home by being more aware of recycling and composting

- “[It] helped keep my mental health stable. Made me feel like I am contributing something, if only on a small scale. Given me positive benefit of community spirit. [I’ll] Probably **start to compost/not throw food waste in general waste**.” - Volunteer, The Garden Classroom Sessions
- “[The activities had] a significant positive impact. I have **thought more consciously of my own waste recycling**. I have also litter picked my own area.”

Reduce amount of waste through better or reduced buying habits

- “It has made me feel more connected with nature, paying closer attention than I usually would to the sensory stimuli and stories. Due to the survey questions **I think I am going to actively be**

more eco-minded - especially in regard to **buying secondhand and only what I really need**. I’d also like to **use a reusable coffee cup more often**. I think it is great to make these activities free and accessible, as it is nice to take part alongside other people.” Amber, Walthamstow Wetlands Walk and online Sensing Autumn trees workshop, 27 October

- “[The events made me] relaxed and feel connected to my family. **[I plan to] reduce plastic (or try)**. [I] enjoyed the small conversations about nature and the environment.” Nadia, Welsh Harp Litter Pick 27 July, and Welsh Harp Tree Walk 31 Aug
- “[It has made me realise] that even living in an urban environment/city how lucky we are to be surrounded by nature, it’s important to appreciate it. [I plan] to make more time to go to different parks/nature reserves, **consider where my money goes in buying or donating to support their charities**. Being in green space/nature/outside is really important for our wellbeing.” Claire, Zine making on 24 August and Sunshine on the Water art exhibition and water watching in the Walthamstow Wetlands on 4 September

How are participants reducing waste?

Less food waste and meat consumption

- “On one hand its calming and enjoyable in the immediate sense, but also has highlighted my feeling of disenchantment with urban life. **I’m attempting to grow more herbs and useful plants at home, and to consume less wasteful products.**” Volunteer, The Garden Classroom Sessions
- “Great opportunity for family bonding time and for my little one to learn, engage, and show interest in natural and their habitats. **[I] never thought of making candles with bees wax, making a bee with cotton wool and tree branches and making seed bombs could be so fun and do-able. Going forward I'll definitely look online for games that can be made using materials that we have around the house before buying new toys.**” Jesse, Creepy Crafternoon, 31 October

Reduce amount of waste through repair activities

- “I planted seeds from seed bombs we made. Felt nice to spread green. [I] have tried to always carry a bag and bottle and compost. **[I] want to try repair and make less waste.** [I] like meeting new people.” Xiaowei, Pollinator Workshop

How are participants reducing waste?

Reduce amount of waste through growing plants, crafting and creativity

- “This [equinox] event is amazing. I’ve never thought so deeply about my bread, how it grows and who makes it, and what it means. **I’ll feel a lot more deeply about my food I think and try not to waste it.**” Sarah, Parkrun and Fire Choir Equinox Event
- “[It] inspired me to be more mindful in and around nature and respect the planet. [I plan to] drink more herbal tea, **consume more vegetables and use herbs, encourage people around me to be more plant based and make your own teas, food and salads.**”
- “[It was] calming and grounding, always happy to learn new things about nature, teas and flowers. [I plan to] look around more and learn about tree and wildlife, feel part of something bigger and to care more for it - **eat less meat and waste less.**” Shan, herbal tea brewing and flower pressing at the Hornbeam centre, June
- “I feel more connected with nature and it helps boost my spirit knowing I am helping to preserve our planet. **[I plan to] eat less meat, however I am quite a big person hence it's complex finding the right balance.**” Nathan, water watching in the Walthamstow Wetlands and Nature Lates Yoga, 26 Sept

Help to clear other’s litter

- “[The activities] helped me break up screen time and bring my stress levels down. [I plan to do] **more litter picks and volunteering.**”
- “I have a stronger sense of belonging and responsibility with the area. [There have been] positive mental health impacts too. [Now I] **take a pair of gloves with me when I spend time in nature to litter pick as I go.**”
- “[I spotted a] small bit of blue plastic. **Yes [I] picked it up.**” Nicole, outdoor roller skating and self-guided online sensory tree session.
- “**I would consider putting the litter in the bin** especially if it was something like empty bottles or cans.” Luis, Sensory autumn tree workshop and Finding meaning by water workshops



Case studies from the pathways



Senses

Sense pathway events are in some ways the “easiest” pathway to explore, especially when using the senses of sight and sound.

Many participants valued tapping into their under-used senses to explore nature. For example, herbal tea brewing workshops involved taste, smell and texture when participants were able to either forage their tea leaves or pass around samples. Participants found focusing on these other senses to be relaxing and mindful.

Parents and guardians particularly valued events that allowed for hands-on, touchy-feely activities that could excite and engage their children.

“

I don't go to enough of these events. I'm extremely time poor. I've got a full-on job. But coming to this, it's a fantastic experience, and my son is loving it.

There's a huge psychological benefit to coming here: just a momentary stripping away of all the trappings of modernity and being in the here and now in nature.

I want to, but I don't know when I can do something like this again. But listening to the monitors and hearing these creatures' hidden sounds, then actually getting to see them dive and flit about tonight has been magical.”

Gregory, Islington resident

Bat Walk with Gillespie Park and Freightliners Farm



“

I learned so much about plants, especially the ones you can brew teas from. I loved learning the histories, my background is Italian so finding out about the Roman links was so interesting.

Then the foraging was something I would never have done, I found something so close to me in my area. I'm here all the time and I never knew this [the orchard] was here. I can't wait until the berries and apples ripen now that I know they're here.

I'm going to try get out more because I feel better when I get out. And I'm getting my daughters to guess what the plants are!”

A, Haringey resident

Herbal tea and foraging participant with OK Foundation, the Lordship Hub





Beauty

Events focussed on beauty in nature benefitted from knowledgeable guides. The Butterfly Walk at Gillespie Park had a Butterfly Trust walk leader highlighting different species' wing patterns, and a pollinator workshop leader enthused participants about the rainbow sheen on a beetles' shell, seen under a microscope.

The facilitators' appreciation was contagious, often sparking group conversation or a sharing moment. Attendees felt a sense of fulfilment from noticing previously hidden details of beauty around them.

Participants at the cyanotype and flower pressing activities were curious and interested to know more about the plant materials they were using to craft. Young people at the events dipped into conversations about fashion and food without prompting, discussing sustainable diets and reducing meat consumption, and the selling and purchasing of second-hand clothes online.

“

Now I have more information my world is expanding. The butterflies, I know how there are so many colours. I saw a blue butterfly for the first time. I saw how even the brown butterflies are beautiful.

I like to visit new places and see new things in London, even though the Welsh Harp was very far, I learned a lot!

I go home to Japan once every year, when I am there, I see the recycling and it is so difficult. Here in Islington I put the recycling together and it is so easy. I try to do more and buy less, I am passing on a lot of the things I don't need to friends and charity.

Kiyoko, Islington resident

Butterfly Walk and Welsh Harp Tree Walk



“

I enjoyed the herbal tea session in the Story Garden. I was sad to hear it's closing and it made me realise I should visit community gardens like that more often. I'm drinking the tea I made, it's really good for stress relief and I'm going to try make more as presents.

I would love more nature walks! I learned so much about nature and this bit of Barnet which is so weird because I used to live in this area.

There was something fantastic about visiting and admiring the Totteridge Yew. It's so vast and twisting and beautiful. It's so grounding to think of how long it has been growing there.”

Sonti, Hackney resident

Herbal tea with Global generation and Totteridge Tree Walk with Hubbub





Meaning

Facilitators with good knowledge of the histories, myth and symbolism as well as a strong story-telling skill lead the meaning pathway activities.

Events that wove in meaning, such as the tree walk incorporating mythology, flower pressing incorporating cultural symbolism and outdoor folk singing successfully brought participants together to share and reflect. These events created connections. Connections to nature, to communities and to place. Mythologies and folk stories were seen as a 'shared' resource through which we can 'reconnect with nature' and each other.

Traditions and rituals presented a chance to think more deeply. The Equinox event with Fontayne Fire Society/Fire Choir focused on the Harvest season and the key symbolic produce of bread and apples.

Some participants connected with the mythologies and folk stories on a deeper and more emotional level, finding *"the meaning of life in every tree, even the elm inspiring new beginning in death"*. Others enjoyed the activities as new knowledge from hearing stories they hadn't heard before.

“

***‘I am fish swimming
within the icy river moving swiftly.
The splash of the water moving
as I swim below with birds above paddling about.
The texture was soft with the smell of the
riverbank and the colours of grass and mud.
I swim to the high end of the river with feelings
of joy upon where the journey ends.’***

**The activities have given me a wider knowledge
of natural habitats and its wildlife. I plan to spend
more time around natural habitats and feel
connected.**

**I would consider putting the litter in the bin
especially if it was something like empty bottles
or cans.”**

Luis, North London resident

***Sensory autumn tree workshop and Finding meaning by
water workshops, with Hubbub***



“

I try to spend time outdoors. Parkrun is great, I've been watching autumn arrive. This [equinox] event is amazing. I've never thought so deeply about my bread, how it grows and who makes it, and what it means. I'll feel a lot more deeply about my food I think and try not to waste it."

Sarah, Haringey resident

***Parkrun with Lordship Rec Parkrun, and Fire Choir
Equinox event***

”

“Our ritual this Equinox will revolve around making and consuming bread. We invite you make and bring bread yourself. Our amazing ritual leader, Lauren, has written a guide about how to turn making bread into a ritual. Take from the guide what you want. Don't feel pressured to follow it to the letter or at all. We'll still appreciate it if you bring along your best crusty bloomer. However, this is a way that you can think more deeply about food and how it connects us to the Earth, community and ourselves, and imbue your bread with extra power for when we consume it together.”

***Fontayne Fire Society/ Fire Choir, Equinox Event 21 September
2025***



Emotion

Tapping into the 'emotion' pathway can be simple depending on finding the right space. Seeking out calm, peace and joy often depended on a lack of background 'city-noise'. Background noise can prevent people from fully disconnecting from their busy lives.

Even in semi-urban settings, the yoga and zine workshops successfully got participants to tap into the nature surrounding them. Both workshops asked participants to focus on examining specific plants or listening to specific sounds to help bring about feelings of awe, joy and calm.

“

Mindfulness. [The activity was] time out of my busy life to stop and talk to some new people with no agenda. [I plan to] listen/look more, go on more events. [It was] really nice [...] to do something wouldn't normally do.”

Emily, Waltham Forest resident

Guided walking tour and Sunshine on the Water art exhibition with water watching in the Walthamstow Wetlands

Emily attended the guided walking tour of the Walthamstow Wetlands where she learnt about the history and building of the reservoirs and their function as an important wildlife habitat. The art exhibition explored different artists' connections to and different symbolisms of water, following by a quiet meditative session watching the Wetlands. Emily felt personally connected to this as a resident near the reservoir and found the activity calming. She valued the opportunity to talk to new people about something different that wasn't her work. Between the first and second workshops, she had been inspired to look more into her local area and had discovered a Repair Café which she had booked a visit to in the upcoming weeks.



“

There was this moment in the yoga, we were holding a pose and the sun was setting.

The room was turning pink and then we heard the whooping of the wings of a flock of birds flying overhead. The instructor asked us to tune into it, so we had a moment of stillness. I heard the birds travel over us and into the distance.

And I had this moment of feeling, wow, we are all part of something so much bigger. And so connected to everything. I felt so grounded and so free. I'm still feeling a calm glow now.”

Nina, employed in Camden

Yoga and herbal tea brewing, with Hubbub and Global Generation





Compassion

To tap into the 'compassion' pathway activities were focused around helping nature. These included litter picking, but also included seed-bomb making, bug shelter making and project partners ran various gardening and greening activities on their sites to look after their plants, sow new seeds, harvest produce and water flower beds. Participants at these events grew interest in growing useful plants at home, reducing food waste and composting.

We found it was easier to have conversations linked to waste reduction, environmental protection and sustainable action with participants these types of events. There seems to be a virtuous cycle of people feeling good from doing good, then wanting to do more.

One participant considered how he buys and smokes cigarettes after seeing the quantity of cigarette butts by the canal and another learned about e-waste after the Friends of the Welsh Harp group collected littered vapes for recycling.

“

I saw an article about [litter picking] on the news. I was amazed to see how much [Elena Horcajo Rubi, Skipping Down the Canal] has achieved and what she's getting done. I realised the article was talking about my area and just down my road.

I live just up there, but I've never litter picked before. I've seen the rubbish and thought, 'yeah, it's pretty gross.'

I'm actually so surprised by the cigarette butts. I spent about 10 minutes just by that bench trying to get them all, because there are birds nearby or it could go into the canal. You can get really into it, like really zoned in. I honestly don't think I'll use cigarettes the same way.”

Sam, Hackney resident

Litter picking and canal greening, with Skipping Down the Canal and the Canal River Trust



“

I built a stronger connection with my local area through volunteering with the Welsh Harp clean up.

I have a stronger sense of belonging and responsibility with the area. [There have been] positive mental health impacts too.

[Now I] take a pair of gloves with me when I spend time in nature to little pick as I go.”

Safia, Barnet resident

Litter picking and tree walks with Friends of the Welsh Harp



Our recommendations

Event recommendations

- Continue to offer similar nature-based activities for north London residents. Increasing compassion and care for nature is a catalyst for engagement in waste prevention behaviours.
- Prioritise finding and engaging residents who are not environmentally minded in the activities and research. Working with fixed groups like The Hornbeam Centre, The OK Foundation and Mind Enfield help to reach groups participants who may be less nature inclined and reduce self-selection bias.
- Nature connection workshops should be offered in person, or self-guided online. Facilitated online workshops weren't popular.
- Ticketed events that are publicly available with caps on attendee number due to space restrictions or limited resources, should have deposit cost. This helps raise attendance figures and decrease drop out numbers. Discount codes or free tickets can be offered to help make the event accessible.
- Target future events for male participants or with community groups that support men, as participants tended to skew female.
- Offer practical workshops to support residents with waste prevention behaviours such as upcycling/repurposing and repairing household items.



Want to make sustainability second nature? **Let's chat.**

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