

Leveraging Blue Spaces to Improve Well-being Outcomes in Coastal Communities: A Case Study of The Bay Initiative

Abstract

English coastal communities face significant deprivation and poorer health outcomes compared to inland areas. This study examines the potential of exposure to coastal Blue Spaces to help improve this situation, using The Bay project around Morecambe Bay as an exploratory case study of a place-based intervention. Through social prescriptions, the programme aims to reconnect socially isolated individuals with their local coastal environment and community, reduce access barriers and support well-being.

Based largely on interviews with a senior community engagement lead at the Lancashire Wildlife Trust and a senior public health official working in the Morecambe Bay area, the study highlights the need for tailored referrals and ongoing support to ensure equitable access to health-promoting activities. Findings suggest that combining social prescriptions with community-led initiatives could improve the benefits of Blue Spaces and support better well-being outcomes. Recommendations are made to this end.

Keywords:

social prescribing

Blue Space

coastal health inequalities

well-being

community engagement

Introduction

Across England's coastal communities, health inequalities remain a persistent concern, particularly in towns that have experienced long-term structural and industrial decline (House of Lords, 2019; Whitty, 2021). Here, the term 'coastal communities' is used in the geographical sense used in English public health and policy, referring to people living in coastal towns and areas (ONS, 2024). These communities often face deprivation, poor health, and limited access to supportive infrastructure. Recent academic and policy interest has focused on the potential of 'Blue Space,' aquatic environments, to support well-being (White et al., 2016; Britton et al., 2020; White et al., 2020). While proximity to water may have restorative benefits, questions remain about how such spaces can be made inclusive and accessible for the people who live nearest to them.

One response to deprivation related challenges in many coastal and inland communities has been social prescribing, where health professionals refer individuals to non-clinical services such as arts groups, debt support or physical activity (Buck & Ewbank, 2020). This broad framework includes nature-based activities, such as nature walks, gardening groups and nature restoration projects. These are now being used as a means of improving mental and physical health and reducing loneliness (Astell-Burt et al., 2024). In practice, social and nature-based prescriptions often coincide, particularly where outdoor environments are used to support recovery and reconnection. Blue Space exposure has the capacity to support emotional restoration, attentiveness and social connection (Georgiou et al., 2021). When people are able to savour such environments, engaging mindfully with natural sights, sounds and sensations, their well-being benefits may be enhanced (Jarratt et al., 2022).

Yet access remains uneven. For example, Gray, Millar, Coyle, Diaz, and Wheeler (2023) found that, in Scotland, disabled people, ethnic minorities, younger adults, non-graduates, and social renters were less likely to access coastal Blue Spaces. While the evidence base is growing, much of the existing work focuses on outputs and individual change, often through quantitative assessment. Less attention has

been paid to the conditions that support sustained and meaningful engagement with Blue Spaces. While the Blue Space literature reviewed here is international, the sources on social prescribing and coastal communities draw specifically on an English case study.

This article presents an exploratory case study of The Bay, a nature-based social prescribing initiative operating across three sites in Northwest England. Drawing on interviews with the programme manager and a manager of population health for the region, alongside organisational material and evaluation reports, the study examines how the intervention supports well-being, place connection and environmental awareness among marginalised people. It contributes to growing discussions around nature-based health interventions by examining how a locally based programme can support access to, and engagement with, Blue Spaces. Although grounded in an English policy context, the findings may hold relevance for other coastal or structurally disadvantaged settings seeking to promote inclusive engagement with nature.

Literature Review

Blue Space, Restoration and Well-being

Increasingly, the relationship between natural places and well-being, including mental health, is becoming recognised. At the centre of this is the idea of restoration. This refers to the process of recovering and replenishing one's mental, emotional, and physical health after it has been depleted due to stress, fatigue, or other forms of strain. Environmental and social psychologists have suggested that natural environments can help with restoration, stress reduction and overall well-being. In the 1980s Kaplan and Kaplan (1989) suggested that restorative natural environments offer an optimal experience which can ease mental fatigue; Attention Restoration Theory argues that such environments can nourish attention and replenish depleted energy. Stress Reduction Theory, proposed by Ulrich (1984), complements this by arguing that natural environments reduce stress through positive emotional responses and physiological calming effects. Both theories 'argue

that non-threatening nature environments (including Blue Spaces) offer many of the characteristics for supporting such restoration from stressful and cognitively demanding situations' (White et al., 2020, para. 4). In recent years, research has focused more specifically on Blue Spaces.

There are psychological benefits to visiting outside spaces but positive feelings such as calm, refreshment and enjoyment are particularly associated with Blue Spaces. Studies confirm that exposure to Blue Space has a positive impact on restoration, stress reduction and well-being (for an overview see White et al., 2020 and Georgiou et al., 2021). Georgiou et al. (2021) highlighted how increased physical activity, psychological restoration, and social interaction in these spaces contribute to well-being.

One element of exposure to Blue Spaces that is relevant to this article is savouring. It refers to those moments when someone can 'attend to, appreciate, and enhance the positive experiences in their lives' (Bryant & Veroff, 2007, p. 2). When there is little or no distraction and time to soak in an experience, then savouring takes place. The outcomes of these types of events are varied, often revolving around adding clarity to a situation and contributing to individuals' personal growth or recovery. It might mean consciously appreciating and immersing oneself in the sensory experiences offered by Blue Spaces, such as the sounds and smells of the seaside. This mindful engagement amplifies the positive emotional impact of being near water, making the experience more restorative and enriching. Incidental exposure to Blue Spaces may offer fewer benefits than when it is intentional (Jarratt et al., 2022).

Well-being interventions that utilise Blue Spaces

Earlier Green Gym and Blue Gym initiatives sought to encourage physical activity and engagement with natural environments, while also contributing to the developing evidence base on the health and well-being benefits of nature and Blue Space (Yerrell, 2008; Depledge & Bird, 2009; White et al., 2016).

Interventions in Blue Spaces have been shown to improve mental health and psycho-social well-being. Britton et al. (2020) conducted a systematic review of thirty-three studies into such interventions, specifically designed for therapeutic purposes. These interventions often included programmes that facilitated aquatic

leisure or sporting activities. Typical examples are surfing, dragon boat racing, kayaking or sailing, undertaken by specific groups such as veterans with PTSD, breast cancer survivors, paraplegics, those in recovery from alcohol addiction and young people facing challenges of some kind.

Often led by outdoor instructors, these activities offered reconnection with nature and respite. Commonly reported well-being outcomes included self-esteem, self-efficacy, social confidence, resilience, and mood-related aspects such as stress and anxiety, typically measured through self-report. Improved social relationships and pro-social behaviour were also noted. Physical health outcomes were less frequently assessed. In a study of cancer patients undertaking sea-based activity programmes, the main benefits were reduced tension, anger and improved mood, rather than physical change (Carreño et al., 2023).

While such initiatives are valuable, they often serve specific target groups rather than local communities more broadly. Greater inclusivity in Blue Space activity design is needed, particularly in overcoming barriers such as race, class, ability and confidence (Whitty, 2021; Gray et al., 2023). Coastal activities can instead be rooted in the local community through social prescriptions. This idea encompasses, but is broader than, nature-based activities and nature prescribing and is explored after a consideration of stewardship.

Community-Based Stewardship and Environmental Volunteering

While instructor-led or sport-based programmes in Blue Spaces offer therapeutic benefits for specific groups, other forms of nature engagement also support well-being. Stewardship activities such as environmental volunteering involve purposeful action in natural settings and are often linked to the care and shared management of local environments. This reflects broader ideas about how natural resources can be sustained through locally adapted, participatory arrangements (Ostrom, 1990). Significantly, stewardship in natural settings has been associated with increased social confidence and greater social inclusion, as well as broader health and well-being benefits such as reduced stress (O'Brien, Townsend, & Ebden, 2010). The Green Gym programme, for example, encourages participants to take part in conservation work that supports social inclusion as well as environmental and

personal health outcomes (Yerrell, 2008). Such models are not based on individual therapy but on shared, purposeful activity. This has clear parallels with The Bay, particularly in tasks such as habitat maintenance, where participants contribute to a shared outcome through active involvement.

Social Prescribing

Social prescribing is well-established within the UK's National Health Service (NHS). It started in the 1980s but it gained wider recognition from the 2000s onwards, notably in the UK and other developed countries, particularly Canada (Bragg & Atkins, 2016; Buck & Ewbank, 2020). By 2019, social prescribing link workers (sometimes referred to as social prescribers or simply link workers, the name varies) were widely established in the surgeries of General Practitioners (GPs), the local doctors providing primary care. In 2024 there were over 3,500 social prescribing link workers employed by primary care teams in England; they made over 2.7 million referrals since 2019. The number of these workers could potentially triple by 2037. Evidence of their positive impact is growing, suggesting reductions in NHS pressures and improvements in health and well-being. For example, an evaluation involving 1,751 referred patients in Tameside and Glossop showed an average 42% reduction in GP appointments (National Academy for Social Prescribing, 2024). Nevertheless, large-scale quantitative evidence remains limited.

The aim of social prescription is to improve health and well-being, as well as reduce loneliness and ease healthcare demands (Buck & Ewbank, 2020). In the UK model, a healthcare professional refers someone with non-medical needs to a link worker, who will listen, assess their circumstances, and help them access appropriate forms of support (Buck & Ewbank, 2020; NHS England, 2022). These may include services such as Citizens Advice or mental health charities, targeted support such as bereavement counselling, or shared activities including creative arts sessions, cookery groups, or organised walks, typically delivered through community groups.

Often, these community activities make use of Green or Blue Spaces (Bragg & Atkins, 2016; Buck & Ewbank, 2020). NHS refers to this as 'green social prescribing': 'the practice of supporting people to engage in nature-based interventions and activities to improve their mental and physical health' (NHS England, 2021, p. 1).

While some sources use the term ‘nature prescription’ more broadly, green social prescribing refers to structured referrals into nature-based programmes, usually run with community partners. This article examines one such programme. The Bay is based in coastal northwest England and involves regular group sessions in outdoor settings. It is locally embedded and explicitly social.

The term social prescription is used here in line with NHS England (2021) usage and the terminology employed by those involved in The Bay. The prefix ‘green’ is not used, as it did not appear in the interviews and may cause confusion in a coastal context. Although The Bay involves structured engagement with the coastal environment, it is described here as a form of social prescription, rather than green, blue, or nature prescribing.

While social prescribing is not limited to nature-based activities, its role in encouraging Blue Space access is important. Nature-based activities can help reduce loneliness (Astell-Burt et al., 2024), provide purpose, and support the development of meaningful relationships (Yerrell, 2008; O’Brien et al., 2010). This is especially important in deprived areas, where barriers to accessing natural spaces can be compounded by broader social determinants of health, particularly in many English coastal communities.

English coastal communities: well-being and disadvantage

In this article, ‘coastal communities’ is used in the geographical sense common in English public health and policy, referring to people living in coastal towns and areas. This is consistent with the ONS (2024) classification of coastal built-up areas, which is based on physical location and does not require the presence of tourism, ports, marine industries or particular population characteristics.

In recent years it has become increasingly clear that, whilst varied, English coastal communities as a whole face substantial social and economic disadvantages, including limited healthcare, lower educational attainment, and higher unemployment than the national average (Whitty, 2021; Pool et al., 2023). England’s Chief Medical Officer describes ‘coastal effects’, whereby health outcomes remain disproportionately poor even when controlling for deprivation and age (Whitty, 2021,

p. 7). There is no single explanation for all this. The precise causes of the coastal effect remain underexplored. Residents in a study of Kent coastal communities highlighted changing housing dynamics alongside the loss of traditional industries as factors contributing to local disadvantage (Stewart & Meerabeau, 2009). Being 'at the end of the line' can also restrict connectivity and transport services and compound existing inequalities (Whitty, 2021; Asthana & Gibson, 2022).

Historically, many English coastal towns prospered through tourism, fishing, ship-building or other industries. Over recent decades, however, they have faced industrial decline, shifts in tourism patterns, and reduced investment, leading to persistent socio-economic disadvantages (Jarratt, 2019). The decline of traditional industries has contributed to unemployment, poverty, and health inequalities, creating complex barriers to accessing local Blue Spaces (Stewart & Meerabeau, 2009; Whitty, 2021). While regeneration projects today often aim to address these inequalities through new employment and economic investment, such initiatives must be carefully designed to benefit existing residents rather than inadvertently reinforcing exclusion or disconnection. These complexities are discussed later in this article.

A House in Multiple Occupation (HMO) is usually a property rented by several unrelated people who share facilities such as a kitchen or bathroom. High concentrations of HMOs are often associated with lower-value housing markets and deprived local areas and can contribute to concentrations of deprivation and ill health, as well as placing additional pressure on local services (House of Lords, 2019; Whitty, 2021). In former resorts such as Morecambe, however, there is an additional historical dimension, as former hotels and guest houses became surplus following tourism restructuring and were converted into low-cost accommodation (Jarratt, 2019). The Centre for Social Justice (2013) described a recurring pattern in seaside towns as 'poverty attracting poverty', whereby falling employment and property values encouraged or facilitated the movement of lower-income and vulnerable people into areas with cheap housing, including HMOs.

The vulnerability of many coastal communities is therefore not simply a consequence of living by the coast. It reflects an accumulation of disadvantages that have developed over time. Economic restructuring has reduced employment opportunities,

while peripheral location can restrict transport, access to services and investment. In some places, lower property values and concentrations of low-cost housing have also attracted or accommodated people already experiencing disadvantage. These factors interact with ageing populations, lower incomes and existing health inequalities, placing further demands on services that are themselves often limited (House of Lords, 2019; Whitty, 2021; Asthana & Gibson, 2022; Centre for Social Justice, 2013).

These accumulated disadvantages are reflected in poorer health outcomes. English coastal towns experience significantly higher rates of ill health. For example, 11% higher rates of chronic obstructive pulmonary disease, and a greater prevalence of mental health issues, such as an 11% higher rate of severe mental health disorders. They also have higher rates of substance abuse, lower life expectancy, an ageing population, and challenges related to social isolation and loneliness (Asthana & Gibson, 2022). These towns are more likely to have high rates of hospitalisation for self-harm and substance abuse (Asthana & Gibson, 2022). Many individuals facing these challenges also lack an effective personal support network. Whitty (2021) emphasises that coastal communities have long been overlooked and calls for better access to healthcare services, community-based interventions, and mental health support for vulnerable groups.

Even when surrounded by nature, access to natural spaces in coastal communities is often restricted by practical and psychological barriers, a form of environmental exclusion (Whitty, 2021) in which the health-promoting potential of natural environments is undermined by social disadvantage. Proximity to nature does not guarantee health benefits.

Pool et al. (2023) and Asthana and Gibson (2022) both point to this paradox, where proximity to Blue or Green Spaces does not necessarily translate to better health. Asthana and Gibson (2022) call for greater public health research and policy alignment to address the distinct health challenges in these disadvantaged areas. Pool et al. (2023) recommend providing hyper-local Green and Blue Spaces, even if small, and emphasise the importance of ensuring natural spaces have practical amenities, such as seating, and are accessible for residents going about their everyday lives. They also stress the need to involve the local community so that the

significance of these spaces is recognised, a principle consistent with Ostrom's (1990) work on the governance of shared resources.

This literature highlights the potential of Blue Spaces as a resource for promoting public health and well-being. Nature-based interventions offer an opportunity to provide cost-effective services in the context of struggling healthcare systems (Bragg & Atkins, 2016; Britton et al., 2020). Britton et al. (2020, p. 65) summarised that 'mental health, especially psycho-social well-being, can be improved with investment in Blue Spaces. Key areas for future research include improving understanding of the mechanisms through which blue care can improve public health promotion.' As Pool et al. (2023) point out, any such solutions should be local.

This has not happened in a systematic way across England. The Bay appears unusual in the publicly available literature, as it combines a specific coastal Blue Space setting with a locally tailored design aimed primarily at the resident community, and incorporates social prescribing to widen access. A systematic mapping of comparable programmes was beyond the scope of this article.

The localisation of Blue Space interventions

As Pipitone and Jović (2021) show in their study of urban green spaces during COVID-19, equitable access and a sense of belonging are central to making nature spaces part of people's everyday lives. In coastal settings, this means designing interventions that are not only environmentally beneficial but also socially and culturally relevant. Community-embedded, place-specific approaches can respond to both social and environmental needs and make participation more accessible to local residents. While surf therapy and similar programmes offer benefits, they are often aimed at particular groups rather than the wider population. Schemes utilising the health benefits of Blue Spaces could be more closely aligned with local communities to improve health. The Bay is a rare example of this in practice.

The Bay's delivery utilises social prescribing through local GPs and includes structured nature-based group sessions that reflect the specific coastal environment local to participants. Rather than importing high-cost or specialist activities, or moving participants elsewhere, The Bay adapts to the affordances of local settings. It offers a flexible, inclusive model of support that addresses both health inequalities

and the distinctive characteristics of place. In Catalonia, place-based models have also been tested in Blue Spaces. A pilot intervention offered short-term, sea-based group activities for oncology patients, with reported improvements in mood and reduced anxiety (Carreño et al., 2023). Although not a social prescription programme, it similarly shows the potential for locally grounded Blue Space interventions in public health. Both this intervention and The Bay were delivered in specific coastal settings and illustrate how Blue Space interventions can be shaped around local context and available infrastructure.

Methods

This article presents an exploratory case study of The Bay, a nature-based social prescribing initiative operating along the Morecambe Bay coastline. The case is defined geographically and thematically, focusing on how The Bay supports well-being in disadvantaged coastal communities in northwest England. The design follows Creswell's (2014) guidance on qualitative inquiry, particularly his emphasis on examining a clearly bounded case through engagement with multiple sources of data. These include interviews, documents and reports, used to build a contextual understanding of the programme.

The central data source is a semi-structured interview with a senior manager from the Wildlife Trust, who played a lead role in designing and delivering The Bay. The interview lasted approximately 90 minutes and was conducted online via Microsoft Teams, recorded and transcribed. Open-ended questions covered the programme's background and rationale, its operation, referral processes, participant needs, challenges, activities and perceived outcomes, with follow-up questions used to explore relevant issues in greater depth. This forms the main case-study interview (Interview 1). A supplementary interview, lasting approximately 54 minutes, was conducted online with a senior public health manager working in the regional NHS system covering Morecambe Bay. This explored coastal health inequalities, social prescribing, barriers to access and the wider regional context and is referred to as Interview 2.

In addition, the study draws on supporting material including organisational descriptions, participant testimonials and an independent report commissioned by the Lancashire Wildlife Trust (Holden & Yuille, 2023). These sources were not treated as background context alone but were included in the data corpus.

Thematic coding was applied manually by the author across interviews and relevant supporting material, with categories developed and refined through repeated readings. Some codes were derived deductively from the literature, such as those relating to health inequalities, savouring and Blue Space access; others emerged inductively during analysis, particularly those linked to referral barriers, hyperlocal design, and impact. These were further developed through cross-comparison across sources. Broader themes relating to environmental connection and the structure of social prescription were used to frame the findings. This approach aligns with the interpretive tradition in qualitative analysis, where meaning is developed through iterative engagement with the material (Silverman, 2016).

This method allowed for analytic triangulation while remaining qualitative and exploratory. Most data were derived from delivery and stakeholder perspectives, and the voices of programme users are represented indirectly through published testimonials and evaluation content. The testimonials are treated as illustrative rather than as independent evidence of programme effectiveness. As a result, the analysis offers a programme-level account of design and delivery rather than a full set of first-hand participant narratives; it may under-represent alternative experiences or difficulties encountered during participation. The inclusion of an independent evaluation report and participant quotations provides some additional evidence, but these remain mediated through prior collection and reporting. The study does not seek to produce generalisable findings. Its aim is to explore how a place-based coastal initiative has been designed, delivered and understood, with particular attention to well-being, inclusion and the needs of coastal communities.

Case Study: The Bay

The Bay Initiative: Case Study Context

The Bay (full name, The Bay: A Blueprint for Recovery) is a partnership between The Wildlife Trust for Lancashire, Manchester and North Merseyside, Cumbria Wildlife Trust, the Eden Project, and Lancashire and South Cumbria NHS Foundation Trust. In April 2021, the partners secured £880,000 from the People's Postcode Lottery Postcode Recovery Fund, with funded delivery from September 2021 to August 2023. Additional funding and underspends enabled staff contracts to be extended. The programme operates through three hubs in Barrow in Furness, Morecambe and Fleetwood, aiming to reduce loneliness and isolation while also delivering ecological benefits through supported nature-based activity (Holden & Yuille, 2023; Wildlife Trust, 2021a).

This case study draws primarily on an in-depth interview with a manager of The Bay (Interview 1); they are employed by the Lancashire Wildlife Trust (full name, The Wildlife Trust for Lancashire, Manchester and North Merseyside), part of the wider Wildlife Trusts movement and a registered charity focused on regional nature conservation and community engagement. The trust receives no direct government funding and relies largely on donations, memberships, and over 4,000 volunteers to deliver its work (Wildlife Trust, n.d.). The case is triangulated with a second interview with a public health (NHS) representative managing population health in the Morecambe Bay area (Interview 2), evaluation materials (Holden & Yuille, 2023), participant testimonials, and published descriptions of the programme's operation.

Local Health and Socioeconomic Setting

Morecambe Bay, England's largest intertidal bay, lies between Lancashire and Cumbria and is a Special Protection Area. Despite its ecological and scenic value, the wider area faces persistent structural disadvantage, including deprivation, limited public investment and entrenched health inequalities (University of Sheffield, 2019; Public Health England, 2018). This is most evident in Barrow-in-Furness, Morecambe and Fleetwood (Figure 1); Figure 2 shows the setting.



Figure 1. Map of Morecambe Bay, showing the locations of Barrow-in-Furness, Morecambe and Fleetwood. Adapted from Nilfanion (2020), *Location map United Kingdom Morecambe Bay*, CC BY-SA 4.0, via Wikimedia Commons.



Figure 2. Morecambe Bay, Lancashire. Photograph: Christoph Michels. Source: Wikimedia Commons, CC BY-SA 3.0.

Each of these three towns has experienced long-term decline following the contraction of key industries. In Barrow-in-Furness, shipbuilding has reduced significantly, with current activity largely focused on submarine construction. In Fleetwood and Morecambe, tourism has declined since the late twentieth century (Jarratt, 2019), and Fleetwood is a less significant fishing port than it once was. Despite the presence of some employment in these and other industries, the towns face common challenges of low income and limited access to services (Public Health England, 2018). All three towns contain neighbourhoods ranked in the highest bands of national deprivation (University of Sheffield, 2019). However, one high-profile investment is now underway in the area: Eden Project Morecambe, an ecologically

themed visitor attraction expected to draw nearly a million visitors annually (Eden Project, 2025a).

Analysis of the English Indices of Deprivation confirms that Fleetwood, Barrow-in-Furness and Morecambe contain neighbourhoods ranked within the most deprived quintile nationally for health and disability outcomes (University of Sheffield, 2019). The towns also report consistently high rates of long-term physical and mental health conditions, often in overlapping forms. Regional data points to elevated rates of preventable health conditions. In Lancashire and South Cumbria, coronary heart disease affects 4.0% of adults, compared to a national average of 3.1%, and hypertension affects 15.1%, above the England average of 13.9%. Stroke prevalence is similarly elevated at 2.2%, versus 1.8% nationally (NHS Lancashire and South Cumbria, n.d.). Suicide rates in Barrow-in-Furness remain above both national and regional averages, while Morecambe and Fleetwood report some of the region's highest levels of loneliness and inactivity (NHS Lancashire and South Cumbria, n.d.). Across the Morecambe Bay Primary Care Network, patients are around 20 percent more likely to experience depression than the national average and one in four people in Morecambe have a limiting long-term illness or disability (Whitty, 2021), placing sustained pressure on local services.

These indicators in Morecambe, Fleetwood and Barrow-in-Furness show health burdens and reflect the national patterns of coastal disadvantage previously outlined. Against this backdrop, The Bay emerged not as a comprehensive solution, but as a practical response to unmet need. The Wildlife Trust manager made it clear that the scheme endeavours to offer structured support to individuals considered left behind by mainstream provision (Interview 1).

Programme Setting and Rationale

While proximity to Blue Spaces is often assumed to be beneficial, this is not always the case. In disadvantaged coastal areas, environmental exclusion can limit meaningful engagement. In this sense, the Wildlife Trust manager reflected, "It is ironic that people would get referred to the coastline for well-being... but for the people on that in that community, they are often not getting those same benefits" (Interview 1). Although not speaking directly about The Bay, the NHS representative

(Interview 2) described how, in disadvantaged coastal wards, “a lot of children who lived... a few streets back and never even been to the beach despite living in walking distance” (Interview 2). Living in a coastal town does not necessarily mean living immediately beside the shoreline, and relatively short distances may still present barriers for some households. The NHS representative went on to argue that access to green and Blue Spaces “doesn’t happen by accident”, linking unequal engagement to limited income, lack of access to a car and public transport that may be limited, inconvenient or costly, particularly for families with children (Interview 2).

The Wildlife Trust manager stated that the coast itself can feel inaccessible to many locals, even in Morecambe, people can “just feel like you’re in a town and not necessarily engaged with the nature aspects of it” (Interview 1). They suggested that this alienation is compounded when the landscape feels difficult to interpret. While seaside leisure is culturally familiar, it usually centres on beaches and swimmable waters. A large intertidal bay, with mudflats, shifting tides and unsafe areas, especially for swimming, can seem uninviting. “It’s not Cornwall,” and without support it is not always obvious to all how to engage with it, they observed. Even though Morecambe Bay is “internationally important” for nature, people “often need a helping hand to understand and appreciate” it (Interview 1).

The programme is deliberately structured around making local sites more accessible to residents. “We’re not creating the impression that you’ve got to go to a flagship nature reserve to have a positive experience with nature,” they explained; “you can access nature kind of relatively close ” (Interview 1). As participants progress, some begin revisiting these spaces outside of the programme, suggesting that local reconnection is significant as both a starting point and an outcome.

Interview 1 made it clear that the programme aims to provide a starting point for rebuilding confidence and connection that is both local and approachable for all, not just those capable of self-referring. In other words, The Bay was developed to offer a route into nature for those often overlooked by standard provision. While participation is voluntary, The Bay differs from the Wildlife Trust’s standard volunteering opportunities. Traditional conservation volunteering often requires individuals to travel some distance independently, commit to physical tasks, and join existing teams, which may be daunting for those with mental health challenges or

low confidence. In contrast, The Bay is designed as a supported intervention, with structured sessions led by trained facilitators in small, consistent groups. There is a contribution to conservation as with standard volunteering, but the emphasis is on social connection, confidence-building, and engagement with local nature (Interview 1).

Nature-based social prescribing has been encouraged nationally as part of the wider social prescribing agenda (NHS England, 2021). In The Bay's case, participants were referred through local health and community partners and could also self-refer (Interview 1), although some people who self-referred reported first hearing about the project from NHS staff (Holden & Yuille, 2023). Interviewee 1 noted that the funder "hasn't been specific" about targeting criteria, giving the team scope to focus on unmet need in the local community through these different pathways (Interview 1). They framed the initiative as rooted in concerns about widening access to nature. "Conservation ... has always been seen as a white middle class game", the Wildlife Trust manager noted, and "the people who most need nature are least likely to access it" (Interview 1). The Bay team sought to remove barriers from the outset, particularly those related to confidence and perceived belonging.

Programme Ethos and the Importance of First Contact

The Bay was designed to be participant-centred, inclusive, and adaptable to local needs. From the outset, the Wildlife Trust team sought to create a space that avoided replicating the power dynamics often associated with traditional mental health services. This approach was intended to avoid a formal, clinician-led feel and to reduce the pressures that can deter participation, with an onboarding process designed to "take away ... points of anxiety" and delivery that allows people to work at their own pace and step back on days when they are not able to engage (Interview 1). Sessions were intentionally structured to be low-pressure and responsive, allowing participants to shape the pace and nature of their engagement. Activities were tailored to each group, based not only on physical ability, but also emotional readiness. Some groups were more comfortable with open conversation and reflective exercises; others responded better to sensory or playful engagement with the coastal environment (Interview 1; Holden & Yuille, 2023). This flexibility reflects a core principle of the programme: to offer space for gradual reconnection on

participants' own terms. Programme activities are discussed in more detail in the next subsection.

Mindfulness elements may be included in activities; meditation was mentioned, but the Wildlife Trust manager stressed that these are not right for everyone, and “for some people, that’s really very uncomfortable” (Interview 1). They also noted that a detailed inward focus may be unhelpful for some participants, for example where there is a “background of psychosis”, since “having a really detailed thought about what’s going on in their mind might not be the most helpful thing for them” (Interview 1). The programme therefore often uses outward, sensory and activity-based ways of supporting attention and grounding, rather than relying on one method. This emphasis on fit and flexibility was echoed by the NHS representative, who observed that “everybody’s different” (Interview 2).

The most sensitive stage was considered to be the beginning. As the Wildlife Trust manager explained, people may be “quite anxious” and “might not have left the house in months and months and months” (Interview 1). To discourage anxiety and no-shows, the team promptly sends a clear and reassuring welcome email designed to demystify the process and help recipients feel at ease from the outset. It includes a short video of the person who will be calling, the phone number to expect, how long the call will take, what it will cover, and sometimes a picture of the meeting location (Interview 1).

“We have put a lot of time into developing a pathway through, so that when people are referred, they are getting an immediate email... we guide people through that journey... so that we reduce the kind of attrition rate... taking away those points of anxiety along the route” (Interview 1). The aim is to make each stage feel safe and predictable. “You are trying to get that to people who are most disconnected from nature and communities and who are underserved by health services potentially, or wider community services,” they explained. “And that is quite challenging because by the very nature of the beast, those people are quite often at home, not really connected to people and the wider community” (Interview 1). This commitment to early-stage communication is more than a logistical detail. It represents a deliberate act of inclusion and trust-building, consistent with the programme’s wider design.

By creating a structure that tries to reassure and encourage participation, The Bay reflects an ethos of inclusion. The manager was also clear that “we’re not a clinical service and we don’t aspire to be a clinical service” (Interview 1), instead it offers a supported route into local nature, with people able to work at their own pace. In broader terms, the public health representative framed social prescribing as a practical, community-based alternative alongside formal services for people whose needs are often social, relational, or shaped by access barriers (Interview 2).

Programme Activities and Facilitation

Participants typically take part over three to six months, with sessions shaped by the group’s interests, abilities, confidence levels and needs. Activities vary, reflecting seasonal changes and participant preferences. End-of-session reflection is used to plan future activities around what has worked well and what participants want to do more of (Interview 1).

Activities typically include:

- practical conservation tasks, including habitat work and beach cleans
- nature surveys and species identification and recording
- guided nature walks
- observation activities (for example bird-watching and rock pooling)
- bushcraft and, where appropriate, foraging or cooking over a fire
- photography, art or craft-based activities

Some sessions are practical, improving the environment, and others are more creative or reflective. Sites are dotted along the coastline of Morecambe Bay; for example, a group might meet at Happy Mount Park in Morecambe, or at Rossall Point Tower in Fleetwood.

Whatever the access point, the intent is to find “a ... collection of activities that will contribute something to nature ... [and] provide the hook that gets that group excited

about nature and being out and confident and comfortable”. Based on Interview 1 and the evaluation evidence, many participants are dealing with anxiety, depression or isolation, and some have not left the house for months. Interview 1 also suggested that “about 40%” of participants “would self-declare ... with a degree of disability” (Interview 1).

EDI monitoring for referrals to the nature and well-being sessions indicates a lower level of recorded disability than suggested in Interview 1. Among referrals with disability data recorded, 26% were recorded as having a disability (85 of 329) (Holden & Yuille, 2023). These figures exclude referrals where the relevant item was recorded as ‘not known’, ‘prefer not to say’, ‘other’, or left blank; this may partly explain the difference between the interview estimate and the monitoring figure. Gender was recorded for 344 referrals; 51% were recorded as female and 46% as male, with 2% recorded as non-binary and 1% as transgender. Ethnicity was recorded for 339 referrals; 91% were recorded as White of British origin, with a further 3% recorded as White of other origin (Holden & Yuille, 2023). Census 2021 indicates that the local authority areas in which the programme operates have high proportions of residents identifying within the ‘White’ category (Lancaster 93.1%, Barrow-in-Furness 97.0%, Wyre 97.5%) (Office for National Statistics, 2023).

In the evaluation period to the end of April 2023, the project recorded 403 referrals to the sessions (Holden & Yuille, 2023). Participants may be referred through NHS and community routes, and they may also self-refer. The programme aims to reach those who “might not be very well connected in that community”, and who “would probably not have heard of the Wildlife Trust prior to engaging with us” (Interview 1). One participant reflected that “it’s easy to sit at home and just not do anything ... those sessions were kind of like a kick start” (Holden & Yuille, 2023).

In early sessions, some participants are hesitant to speak or engage directly, so activities are designed to feel low pressure, with options within each session. Interview 1 explained that participants first meet a project officer to talk through what they enjoy, and what they might be worried about; if someone arrives wanting to be present but “isn’t potentially in the right frame of mind to fully participate”, there is usually “an activity that they can quietly sit at the side” (Interview 1). This is reflected in the evaluation evidence, where participants valued the lack of performance

expectation; “There’s no assessment”, and “Low pressure isn’t it?” They also described outdoor delivery as less intense than indoor group settings; “I think outdoors is more relaxed... say if we’re all sat in a circle like this, for some people it might be quite intimidating. But if you’re just walking alongside someone...” One participant noted that outdoors you “don’t have that feeling of being trapped. I think when you’ve got mental health issues then when you’re indoors sometimes you do feel a bit trapped” (Holden & Yuille, 2023). Delivery is supported by staff training and safeguards, including mental health and first aid training and session planning guidance.

The Impact and Meaning of Participation

The programme places emphasis on continuity and progression. Participants commonly attended a number of sessions, with some maintaining a longer-term connection through other projects delivered by the Lancashire Wildlife Trust. Former participants in each hub also support delivery as peer support volunteers. Case study material describes participants building confidence over time, including becoming “one of the lead people in the groups” and supporting “new starters” (Holden & Yuille, 2023).

The evaluation suggests that the sessions are reaching people with very low mental well-being, and that taking part is associated with improved well-being (Holden & Yuille, 2023). The demographic make-up of participants is detailed in the previous (Programme Activities and Facilitation) section. The evaluation questionnaire was intended to be completed by each participant at the start of their involvement, after six sessions and at the end of participation, although completion was inconsistent (Holden & Yuille, 2023). The 42 follow-up questionnaire responses indicate that 88% reported meeting new people, 95% becoming more active, 95% noticing something they had not looked at closely before, 98% learning something new, and 86% having ‘given something back’ (Holden & Yuille, 2023). While this article prioritises qualitative insight, these indicative figures provide some further support for the positive outcomes associated with participation in The Bay.

However, the evaluation was conducted during the programme’s first 19 months and did not include longer-term follow-up after participation ended (Holden & Yuille,

2023). It therefore cannot establish whether reported improvements in well-being, confidence or engagement with nature were sustained over time. Longer-term outcomes remain beyond the scope of the available evaluation.

Participant accounts indicate that, for some, the most significant step is simply returning to regular contact with others and having a reason to leave the house. A participant reflected on the emotional impact of joining the programme: “I just wanted to stay in my room.” They went on to describe how participation supported recovery: “It was like I couldn’t face the world again,” and “It was like I’d forgotten how to speak to people.” The experience also prompted renewed appreciation for the environment and sense of presence: “It’s given me a new appreciation I’ve never had before,” and “You’re very grounded in the moment, which for mental health is amazing” (Wildlife Trust, 2021b). This perspective was returned to several times during the interview, suggesting that while the activities serve as a focus, the more significant outcome is often the act of participation itself; doing something purposeful in a shared space is what enables connection and the possibility of change (Interview 1).

According to the manager (Interview 1), working together on stewardship activities with a shared goal, such as habitat maintenance or beach cleans, can bring both personal and social benefits for participants, helping to build confidence and a sense of progression. This aligns with evidence from nature-based volunteering programmes, where participants benefit not only from nature exposure but also from engaging in practical, shared work that feels useful and socially meaningful (Yerrell, 2008; O’Brien et al., 2010). This approach reflects a broader understanding that it is not the activity in isolation that matters, but what it represents. The Bay aims to create a setting where participants feel comfortable and socially connected. Its impact appears to depend partly on the continuity of support and opportunities to re-engage over time.

As confidence and connection grew, the programme manager observed that some participants developed a deeper appreciation for their local environment. “There would certainly be a lot of people who didn’t realise what they had on the doorstep and haven’t ever kind of engaged with it to that extent” (Interview 1). In their view, this awareness can support a longer-term shift, where familiar places come to be recognised as valuable. Referring to David Attenborough’s view that people only

protect what they care about, the manager suggested that regular contact with local nature may lay the groundwork for care and stewardship (Interview 1). This aligns with the Wildlife Trust's wider commitment to protecting habitats.

These findings suggest that The Bay can help participants see local Blue Space as an accessible and valued community resource and part of everyday life.

Discussion

The Bay provides a distinctive example of a place-based intervention in communities where health inequalities are entrenched. In Morecambe, Fleetwood and Barrow-in-Furness, economic deprivation and service under-provision combine to limit access to nature and contribute to poor physical and mental health, social isolation and low confidence (Holden & Yuille, 2023; NHS Lancashire and South Cumbria, n.d.). This reflects what Whitty (2021, p.7) describes as the 'coastal effects'. Rather than medical intervention, The Bay creates local, supported opportunities for social and environmental connection.

Its approach differs from more individualised models of therapy or sport that often underpin Blue Space interventions and aligns with evidence that interventions which build social connectedness and adapt to participant needs may be more effective (Britton et al., 2020; Bragg & Atkins, 2016). Through consistent facilitation, group-based participation and community-rooted activity, the programme seeks to encourage trust, belonging and confidence among participants. A key strength is its adaptability; activities are tailored to participants' needs and capacities, supporting engagement and sustained participation in nature-based interventions (Bragg & Atkins, 2016). Sessions are adjusted to physical and emotional readiness, promoting attentiveness and sensory awareness, whether or not framed as mindfulness, and can provide either reflection or the welcome distraction of purposeful activity (O'Brien et al., 2010). The absence of a fixed therapeutic agenda helps people feel welcomed without judgement and reports of participants returning independently to coastal spaces suggest growing connection and confidence (Interview 1; Holden & Yuille, 2023), supporting wider arguments that a sense of belonging in natural settings is important for ongoing engagement (Pipitone & Jović, 2021). Reported benefits cannot necessarily be attributed to Blue Space alone. Social contact, structured

activity, facilitator support and simply having a reason to leave the house may also contribute to the outcomes described.

Interviewee 1 explicitly referred to the inverse care law (Tudor Hart, 1971), framing The Bay as an attempt to reach those least likely to seek help or access nature. They described structured, non-clinical routes into group and environmental activity, with pre-session communication to reduce drop-off. In this account, nature is presented not as backdrop but as a shared resource for well-being, engaged with more readily when participants feel welcome and supported.

Although The Bay is described by its delivery team as participant-centred and non-clinical, the case also raises questions about community power and who sets the terms of meaningful engagement. In practice, the parameters of participation are often shaped by the provider organisation, funders and referral partners, safeguarding and assumptions about what counts as appropriate use of natural environments. The Bay tries to minimise these power differentials by emphasising flexibility in terms of the choice and pacing of activities, based around participants (Interview 1; Holden & Yuille, 2023). More generally, policymakers should not assume that participation will follow from provision alone; it depends on the institutional arrangements that shape what people can do and the incentives to do it (Ostrom, 1990).

Access to the coast, confidence in using it and participation can vary between different social groups as well as between places (Gray et al., 2023). The participant profile in the evaluation suggests that the programme reached people living with disability and in higher deprivation areas (Holden & Yuille, 2023), although the sample also reflects the limited ethnic diversity of the local population. Local delivery needs to consider both barriers to access such as transport, cost and less visible barriers linked to confidence in using these environments and perceived belonging (Pipitone & Jović, 2021). Group-based outdoor provision may also be less suitable for some people where mobility or discomfort with group participation remain barriers.

Ecological stewardship sits within these same power dynamics. Activities such as habitat work or beach cleans can support well-being and social inclusion (Yerrell,

2008; O'Brien et al., 2010), but they can also become overly output-led where goals are set externally and participant voice is limited. This is not presented by the delivery team as a tension within The Bay itself; rather, it is an inference from Interviewee 1's emphasis on care, facilitation and gradual progression, and from the evaluation framing, which together suggest a reciprocal approach in which stewardship is linked to confidence and connection, not only environmental outputs (Interview 1).

For similar programmes, meaningful engagement should include some participant say in what is done, its local relevance and how success is recognised. This also has implications for scale. Expansion does not necessarily require a standardised model. Instead of replicating one template across sites, commissioners can support local delivery teams to tailor activities, sites and pacing to participants and place, supported by consistent facilitation, partnership capacity and evaluation that reports on who is reached and who is not. This aligns with wider calls for locally led approaches to health and place (Marmot et al., 2020).

The Wildlife Trust manager suggested that trust and familiarity can support deeper engagement with place (Interview 1). This relates to the concept of 'savouring' (Jarratt et al., 2022), a process of focused engagement with natural surroundings that can amplify emotional response and well-being. Such an approach is particularly relevant in Morecambe Bay, where the coastline may appear stark or inhospitable without contextual understanding. For residents unfamiliar with its ecological significance or wary of its physical risks, the estuary's mudflats and fast-changing tides can seem alienating. As Interviewee 1 noted, this stretch of coast does not match the popular image of the seaside with more swimmable shores, and without support, people may not know how to access or interpret it; especially those disconnected from nature more generally. Participating in voluntary activities such as beach cleans, habitat restoration or nature surveys provides a purposeful way to spend time in these environments and has been associated in other natural settings with reduced stress, improved mood and increased social connection (Yerrell, 2008; O'Brien et al., 2010). In the testimonial material, participants often described a sense of achievement, belonging and new social connections from taking part, as well as a stronger appreciation of local Blue Spaces through repeated visits. The programme

provided opportunities to savour these environments and to develop a sense of value attached to them, which may support longer-term engagement with, and benefits from, these places (Interview 1).

The Bay seeks to help participants overcome personal constraints shaped by wider structural inequalities. Blue Spaces are often described as freely available, but access is shaped by a range of intersecting barriers, including poor transport, limited income, personal safety concerns and feelings of exclusion. These issues could perhaps be exacerbated by regeneration efforts. Large-scale initiatives such as Eden Project Morecambe will bring welcome economic investment, but initial plans also suggest a focus on local employment, training and community partnerships. While concerns about gentrification are often raised in relation to regeneration projects, there is currently limited evidence that this is a pressing issue in Morecambe or coastal towns in the region. As the House of Lords Select Committee noted, 'unlike in inner-city areas, gentrification is not a major concern in coastal towns' (House of Lords, 2019, p. 28). This appears true of coastal communities like these that are relatively distant from major centres of population in England, notably London. Yet the report also highlighted that major regeneration schemes do not always benefit local populations, particularly those most affected by poor health, low income or insecure housing. Whitty (2021) similarly cautioned that even in places like Blackpool, which have seen substantial tourism-led investment, health outcomes remain among the worst in England. The risk, then, appears not to be displacement but disconnection. Interventions may overlook or fail to reach those with the greatest need. The long-term social effects of such developments merit careful monitoring to ensure that benefits are equitably shared.

The arrival of Eden Project Morecambe highlights not only the potential for economic regeneration, but also the opportunity to contribute to public health and community well-being. The Eden Project already runs social prescription programmes in Cornwall (Eden Project, 2025b), providing a precedent for how large-scale attractions can support inclusive, place-based initiatives. There is an opportunity to sustain and extend existing provision such as The Bay, through longer-term resourcing and partnership capacity. The key question is whether new investment strengthens local delivery networks or bypasses them. In this case, there is scope for

alignment, since the Eden Project has already supported The Bay as a delivery partner. This reflects wider calls for a 'local turn' in tourism and health, emphasising community-led approaches (Marmot et al., 2020; Higgins-Desbiolles & Chew Bigby, 2022).

Conclusion and recommendations

This case study has explored how one nature-based initiative, operating out of Barrow-in-Furness, Morecambe and Fleetwood, helps address unmet need in disadvantaged coastal communities. The Bay provides a promising example of a participatory approach that supports engagement with nature, place and other people, particularly for those facing multiple barriers. Rather than assuming access or benefit, it shows how localised support can help Blue Space become more accessible and meaningful to participants.

The case highlights four key points:

- Social prescribing enables referrals to The Bay for individuals who would otherwise be unlikely to engage.
- Early contact and reassurance can support participation by lowering barriers and building trust. As set out earlier, The Bay's approach included allowing participants to set the pace and sending initial personalised, reassuring messages that encouraged people to attend.
- Emotional connection with local Blue Space is an outcome in its own right. Activities encouraged savouring and renewed appreciation, helping participants feel more confident revisiting familiar coastal areas and at ease in public spaces.
- The specificity of place matters. The programme was embedded in the everyday geography of the communities it served, with activities based where people lived rather than in distant or unfamiliar coastal settings.

Community initiatives alone are not a cure-all; Blue Space exposure does not guarantee well-being. This case highlights the importance of local knowledge,

ongoing support and trusted organisations, as well as considering who is reached and who is not. In coastal towns marked by disconnection and underinvestment, improving access to this kind of local support may warrant greater attention within public health policy and practice.

On the basis of this exploratory case study, five recommendations are proposed:

1. Strengthen referral pathways through social prescribing networks

As social prescribing continues to expand within primary care, it is important that coastal well-being schemes are supported by clear and structured referral routes. Link workers and social prescribers play a vital role in identifying appropriate provision and connecting individuals to programmes like The Bay. Their local knowledge and relationships are key to reaching those who might not otherwise access support.

2. Prioritise communication and trust-building at the point of contact

Referral alone is not enough. People are more likely to attend if they receive clear, reassuring communication from the organisation. Named contacts, visual materials and transparent explanations reduce anxiety and help build early trust, which is often the biggest barrier to participation.

3. Ensure activities are participant-led and locally grounded

There is no fixed model for well-being. Activities must be shaped around group needs, preferences and circumstances. Skilled facilitators should adjust content, pace and delivery. Funders and commissioners should avoid overly rigid outcome frameworks and allow programmes to adapt to participants and local circumstances.

4. Recognise environmental connection as both personal and civic

Engagement with Blue Space may begin with nature walks or beach cleans but can lead to a deeper relationship with place. When participants value their local environment, they may be more inclined to protect it. This dual benefit of stewardship supporting both well-being and informal environmental care should be recognised and encouraged.

5. Support longer-term evaluation and research

Some important outcomes, such as confidence, connection and a sense of belonging, are gradual and not easily captured through short-term metrics.

Evaluation should be proportionate and make use of mixed methods, including participant reflections and stories. Future research should inform longer-term funding and policy support.

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