

Report of the Strategic Director of Health and Wellbeing to the meeting of the Regeneration and Environment Overview and Scrutiny Committee to be held on Tuesday 2nd October 2018.

Subject:

Improving health and wellbeing through green space and green infrastructure

Summary statement:

This report provides an update on the use of green spaces in the District. This paper seeks to outline the current position, opportunities and challenges across the District.

Report Sponsor: Bev Maybury
Strategic Director of Health and Wellbeing

Portfolio:

Cllr Sarah Ferriby (Environment, Sport and Culture, Health and Wellbeing)

Report Contact: Angela Hutton
Programme Manager – Health and Wellbeing
Phone: (01274) 437345
E-mail:
angela.hutton@bradford.gov.uk

Overview & Scrutiny Area:
Regeneration and Environment

1. SUMMARY

1.1 This paper summarises evidence on the importance of green space to health and wellbeing, and health inequalities, building on previous Overview and Scrutiny reports.

1.2 The paper revisits the definitions of green space and green infrastructure and brings new information about work to map green spaces and assets in the District, and emerging evidence of how local communities make use of green space to maintain and improve health and wellbeing.

1.3 Finally the paper invites discussion on how we might seek to increase and improve green assets for the District, particularly in areas where inequalities exist.

2. BACKGROUND

2.1 Updates to Overview and Scrutiny

2.1.1 Recognising the importance of green spaces, and outdoor space more generally, to the health and wellbeing of populations, the Public Health Outcomes Framework includes a measure (indicator 1.16) of how many people in the District use outdoor space for exercise or health reasons. Prior updates on this indicator were received by the Environment and Waste Committee in 2015, 2016 and 2017. The measure reports on the “*proportion of residents in each local authority area making at least one visit to the natural environment for health or exercise purposes*¹”.

2.1.2 This indicator has not been updated since 2017, when the data showed the percentage of people using outdoor space for exercise or health reasons in 2015-2016 was 12.4% in Bradford. This was lower than the averages for England (17.9%) and Yorkshire and Humber (17.5%) for the same time period, but the gap appeared to be closing. This reported rate was based on a small local sample as part of a national survey.

2.1.3 Another measure produced by the Woodland Trust shows that only 8% of people in the District have accessible woodland within 500 metres of their home, compared to 17% on average across England.

2.1.4 The paper is returning to provide an update on recent larger-scale local research, and to address the concerns about unequal access to green space that were raised by the committee in 2017.

¹ The natural environment is defined as: open spaces in and around towns and cities, parks, canals and nature areas; the coast and beaches; and the countryside including farmland, woodland, hills and rivers. The definition excludes time spent in domestic gardens and shopping trips.

2.2 Defining green space

2.2.1 The 2017 paper (received September 26th) provided an overview of the use of outdoor space and green space in particular, and its significance for supporting health and wellbeing and reducing health inequalities. The report noted that ‘public space’, ‘open space’, ‘urban space’ and ‘green space’ are often used interchangeably.

2.2.2 The term green space is used broadly in the paper to simplify a number of issues. It refers to both informal, publicly-accessible areas of green space such as parks, and smaller green areas that are not formally adopted as green space, also woodland and other natural environments such as moorland, on-street trees and planting, green roofs and walls and ‘blue’ areas such as lakes, ponds, canals and fountains. Farmland and moorland in the green belt is excluded although the paper discusses the role of rights of way to allow people to access greenbelt and open countryside.

2.2.3 The 2018 National Planning Policy Framework lists green infrastructure as one of the elements that local strategic policies for sustainable development should address. It defines it as:

“A network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities.” (NPPF, 2018:67).

2.2.4 Reviews of local, national and international evidence show that people, particularly children, who live close to a traditional urban park are likely to experience higher wellbeing benefits than people who live close to open space in urban areas that has little or no greenery. New studies published this year, including local evidence from the Born in Bradford Programme have added to this evidence base.

2.2.5 This year’s report will distinguish between green space and non-green space, however high in quality. It is important to acknowledge this difference because it can lead to a different sort of discussion, to consider where green space, green infrastructure and on-street greenery is lacking in urban areas, and how this might be addressed in a sustainable way, particularly as more housing is planned and delivered over the next few years.

2.3 Strategic links

2.3.1 The District Plan 2016-2020 highlights the District’s 36 parks as a key asset and investing further in green infrastructure is acknowledged as important to achieving a zero carbon economy. Improving quality and access to green space will enable more people to be active in everyday life and improving health and wellbeing of the whole population. This will contribute to several of the Plan’s outcomes including ‘*Better health, Better lives, ‘A great start and good schools for all our children’*, and ‘*Safe, clean and active communities’*’.

2.3.2 The District’s new Joint Health and Wellbeing Strategy 2018-2023: ‘Connecting People and Place’, recognises that the places where we live, learn, work and socialize shape our health and wellbeing. As such the strategy emphasises the

importance of tackling the wider determinants of health. Access to green space is a key measure of success of the strategy, linked to the outcome, '*Bradford District is a healthy place to live, learn and work*'.

2.3.3 The strategy has two specific ambitions relating to green space, "*People have access to green space and children have safe places to play outdoors*", and "*New urban green space makes it easier to meet, play, connect to nature and be active.*" These recognize the importance of outdoor play to children's health and wellbeing, education and learning and the need for more equitable access to green space.

2.3.4 The physical, mental wellbeing and social benefits of green space bring more opportunities for people to be active outdoors. This will contribute to all four outcomes of the Joint Health and Wellbeing Strategy and also support the strategic priorities of a wide range of other plans and strategies in Bradford District, including cross-cutting plans, and strategies that seek to improve mental health and wellbeing; to support families and promote children's development and wellbeing, support people to be physically active, retain their independence to live at home for longer, and build a thriving economy.

3. OTHER CONSIDERATIONS

3.1 The benefits of using outdoor space for health

3.1.1 There is significant and growing evidence on the physical and mental health benefits of being active, particularly in outdoor space. A wide range of research shows that access to outdoor space is associated with better health and wellbeing outcomes, and that income-related inequality in health is less pronounced where people have access to outdoor space (Buck & Gregory, 2013).

3.1.2 The additional benefits of access to high quality green space include:

- Improved mental health and wellbeing for children, young people and adults
- Increased likelihood of physical activity across all age groups
- Reduced violence and aggression: a reduction in antisocial behaviour and incidence of crime in urban areas with green spaces
- Reduced health inequalities: significant reductions in mortality and morbidity from all causes and circulatory disease are associated with areas of greater green space. This result takes into account the effects of income deprivation.
- Increased levels of community activity and residents' satisfaction
- Improvement in air and noise quality and sustainability (increasing biodiversity, encouraging active transport)
- Economic benefits (Background documents 5 & 8)

3.1.3 Research by Public Health England and the London Institute of Health Equity (background document 3) has reported that:

- Access to outdoor space is not equal across the population of England. Research shows that people living in the most deprived areas are less likely to have access to green areas, and will therefore have less opportunity to gain the health benefits compared to people living in more affluent areas.
 - Increasing the use of good quality green space for all social groups (a universal approach) is likely to improve health outcomes and reduce inequalities.
 - Safe, green spaces can increase levels of communal activity across different social groups and increase residents' satisfaction with their local area, bringing other benefits such as greater community cohesion and less social isolation.
- 3.1.4 The significant decline in time spent outside for children and teenagers over a five-year period was noted last year. This is concerning given the level of child obesity in the District and the association between time spent outside playing and increased physical activity levels, which help children to maintain healthy weight.
- 3.1.5 The Born in Bradford Programme has published papers in 2018 that show positive links between health and wellbeing and green space. These show that easy access to green space has a positive impact on the wellbeing of pregnant women, and that the quality of local green space is important to parents of young children, and influences their decisions about making use of local green assets.
- 3.1.6 People are more likely to use green space if it is good quality, safe and easily accessible making it more likely that people will be physically active on a regular basis. Green space in itself is good for mental wellbeing and since last year's report further studies supporting this have been published.

3.2 *Health inequalities and inequality of access to green space*

- 3.2.1 It can be hard to disentangle cause and effect in relation to green space and health and social inequalities. There is strong evidence that higher-deprivation areas have less green space, making it harder for people to experience the benefits associated with regular and easy access. However, people living in urban areas with high deprivation also have poorer health on average.
- 3.2.2 Higher rates of common, preventable chronic diseases such as cardiovascular diseases, respiratory conditions and higher rates of early (under 75) death reflect the impact of multiple factors on people's wellbeing in low-income urban areas. These factors will include poor-quality housing, higher than average unemployment, poorer air quality and lower average incomes, as well as reduced access to green space.
- 3.2.3 Evidence shows that easy access to high-quality green space can help to reduce health inequalities, social isolation and 'incivilities', helping to improve both physical and mental wellbeing.
- 3.2.4 Access to green space is not equally distributed across the District, there is more green space in the north and west of the District, providing residents with accessible

places to walk and be active, close to home. Map 1 in Appendix shows where in the District people live close to green space and where there is no reasonably sized park within 300 metres of a park. Map 2 shows the 10% most deprived and 10% least deprived areas of the District for comparison.

- 3.2.5 The maps show that safe, accessible green space is less easy to access in parts of Bradford City and the south of the District, and in areas of Keighley (north side of A629), Silsden, along the A65 and in pockets around Wilsden, Queensbury and Menston. This inequality will have greater impact in areas of low-income and high-density, terraced housing without private gardens, where there are fewer opportunities for children to play outdoors.
- 3.2.6 Whilst some of these areas border open countryside, people's perceptions of whether space is accessible and useable for their preferred purpose will affect whether they are willing to use open countryside for leisure. For example farmland crossed by rights of way is accessible for walking, but is not suitable for children to run around and play in. Different forms of green space and natural environments provide different opportunities.
- 3.2.7 A national survey of how people engage with natural environments² showed that only 40% of urban residents visited the natural environment in the week before the survey. Younger people, people from Black and Minority Ethnic communities, people without access to a car and people with children were all more likely to visit urban green spaces, rather than natural places further afield. This adds weight to the evidence that living close to green space is important to people, and for many people it provides the main place that they spend leisure time outdoors. Accessible, affordable public transport is likely to be an important factor in enabling people who do not have a car to benefit from larger areas of green space and a wider range of natural environments.
- 3.2.8 On-going management and maintenance of land is important to keeping it useable over the long-term. The Commission for Architecture and the Built Environment (CABE, 2010) found that even where green space is plentiful in urban areas and on housing developments it can be under-used where people feel that it is unsafe, of poor quality or poorly-maintained. Data from the MENE survey from more vulnerable groups of people and people in more deprived areas confirms this finding.

3.3 Making green space easily accessible to all

- 3.3.1 Green spaces and natural environments need to be safe, and *perceived* as safe, accessible and well-maintained in order that people will make regular use of them. These factors may mean that some green space in the District could be an under-used asset for wellbeing, and that local communities are the key to unlocking its potential.

² The Monitor of Engagement with the Natural Environment (MENE) survey.

- 3.3.2 Community engagement work carried out by the Better Start Programme (reported in the 2017 update) has highlighted some of the barriers that people felt prevented them from making use of open and green space. These included safety, distance to parks and uncertainty about whether smaller areas of open ground are intended for public use. The Council's Landscape Team has produced detailed maps of land use in the Better Start area, reported below (section 3.4). This information, together with the detailed mapping will facilitate work with communities to address barriers to accessing green space.
- 3.3.3 Further local research published in 2018 confirms that Bradford follows the national and international picture that people living in more deprived urban neighbourhoods tend to experience a poorer standard of built and natural environmental conditions compared to people living in more affluent areas. Higher income areas of Bradford District, and areas with a higher density white population are recognised as having more accessible green space (including open countryside). A difference from the national picture is that in Bradford City the density of street trees is greater in areas of higher-deprivation and in areas with a higher Asian/Asian British population.
- 3.3.4 The study concludes that publicly accessible, urban green infrastructure offers the best opportunity to address needs and has the potential to mitigate the worst health inequalities on a large scale, and that multiple smaller, green spaces across a larger number of areas would reach a larger number of people than a single large park.
- 3.3.5 Draft standards developed in Bristol set out maximum recommended walking distances to a range of outdoor amenities. They are not legally binding but worth considering given that they are evidence based:
- the nearest green space – 400m/nine minutes' walk
 - children's play space – 450m/10 minutes' walk
 - formal green space – 600m/15 minutes' walk
 - informal green space – 550m/13 minutes' walk
 - natural green space – 700m/18 minutes' walk
- 3.3.5 A 2017 evidence review for the World Health Organization found ***promising evidence*** for benefits from:
1. Park-based interventions that specifically combined a physical change to the green space and promotion/marketing programmes, particularly increased park use and physical activity;
 2. Interventions that involved greening of vacant space having health and well-being benefits (reduction in stress) and social benefits (reduction in crime, increased perceptions of safety) benefits;
 3. Greening of urban streets resulting in environmental benefits (increased biodiversity, reduced air pollution, reduction in illegal dumping);
 4. Green infrastructure helping to manage storm water impacts in urban and suburban areas. (Hunter and colleagues, 2017)

3.3.6 The District's rural areas provide further opportunities for public enjoyment of open space – for physical and mental health benefits and recreational activity. They are a major asset for the District and are mainly accessed through 1000 kilometres of public rights of way, forming a network which links urban and rural areas of the District. Rights of way can also provide valuable access links within urban areas, often away from traffic and so can assist with safety, health and air quality. Rights of way can help people to parts of the District where some of our most attractive landscapes are to be found, linking more people to them. Safe, affordable, accessible travel enables people to visit natural environments that they might not otherwise be able to reach.

3.4 Detailed local mapping of access to green space

3.4.1 Detailed maps produced by the Council's Landscape Team for Better Start Bradford show land use in the Better Start area. These show green space and green assets down to the level of grass verges and also pockets of unused open and brownfield space. The aim of local mapping can be twofold: to understand our green space assets; and to build awareness of potential opportunities to improve and bring unused land into use as community-oriented green space, where resources permit.

3.4.2 The maps also show the location of play areas and equipped play parks showing the recommended maximum walking distances - 100m to a local area for play, 400m to equipped play parks³.

3.4.3 Major roads between residential areas and local green spaces and play parks can also be highlighted, as these can form barriers to pedestrian access, encouraging people to drive rather than walk to parks and green space, particularly if the location of crossing points means that the direct pedestrian route is perceived as unsafe.

3.4.4 Detailed local mapping of the distribution of green space provides valuable information that can be used to inform decisions about where to prioritise and how to use scarce resources. It could be useful to map further areas of the District, for example other wards with high deprivation, child poverty and poor child health.

3.5 How are we using outdoor and green space for health reasons across Bradford District?

The wide and varied network of voluntary clubs and associations that support team and individual sports for thousands of children and adult residents groups are at the heart of a huge amount of current outdoor activity on sports grounds, in parks and in our natural environment. These, together with the walking, cycling and running groups and clubs, allotment and gardening societies, environmental groups, school extra-curricular clubs, community groups are too numerous to list and so can be overlooked. These groups are

³ These are the distances recommended by Fields in Trust.

active year round, week in, week out, and much of what they do takes place outdoors, making a huge contribution to public health and wellbeing.

3.5.1 Local outdoor and green space assets being used for health and wellbeing:

- Cycling 4 all initiative in Lister Park (for students and the public)
- Bradford park runs in Lister Park and Horton Park, junior park run in Roberts Park (free weekly events where participants run 5k)
- Walking groups (e.g. dementia friendly walks, voluntary walking groups in parks)
- Daily Mile (daily 15 minute walk for children in 37 participating schools)
- Bradford City Runs (take place in the Autumn)
- Cycle Super Highway (between Bradford & Leeds)
- Green Line Mile routes (four available, with a fifth in development)
- Active Travel to School Programme provided by Sustrans (the programme works with schools and children on walking, cycling and scooting)
- Grange Interlink, Thornbury Centre and Keighley Healthy Living Centre provide programmes to increase physical activity, an important element of this is utilising green space and encouraging walking and cycling
- HAPP (Healthy Active Play Partners) for families with overweight children aged 5-11, many of the opportunities that families are encouraged to take up are outdoor programmes, using their local park and play pods
- Community allotments
- Park gyms (e.g. Bowling Park, Lund Park and White Bear Recreation Ground)
- Children's Play Areas total 292 facilities over 163 sites. These include fixed play areas, MUGA's, skateparks, gyms and trim trails.
- Bradford City Cycling mass participation event (takes place in summer)
- HSBC Lets Ride and Social Ride Programme (in partnership with British Cycling)
- The District's outdoor centres provide a range of daytime and residential outdoor activities experiences for children and young people, including accessible activities and residential provision at Nell Bank, within the District and the chance to venture further afield through provision in the Yorkshire Dales.
- The Trees and Woodlands Service manage 590 Hectares of woodland across the district, to create high quality, sustainable publicly accessible woodland for

everyone to enjoy, supporting health and improving quality of life. This resource is a sustainable, environmental, economic and social resource for the district now and for future generations.

3.5.2 Recent initiatives or events include:

- Better Start's 'Big Play event' in Parkside Park, summer 2018.
- The youth service summer programme, including outdoor activities in parks and natural environments around the District.
- The Women's and Children's Cycling initiative in Lister Park provides inclusive cycling for inactive women & girls particularly from BAME communities that have a long term health condition or disability. 374 individual participants have taken part to date, 163 of whom had previously been inactive.
- The Outdoor Activity Programme for Families focuses on inactive families from Manningham, Holmewood and Keighley. It has engaged 193 people over a 2 year period, 135 of whom had never considered outdoor activity previously. The programme includes outdoor activities - climbing, kayaking and forest and community integration activities at Doe Park, Ilkley Cow and Calf rocks and Herd Farm Activity centre.
- New 'Play Streets' guidance (currently at final draft stage) will support communities to organise local 'play street' days. This will help to address research from Play England which highlighted that temporary road closures helped children to meet the daily target of 60 minutes moderate to vigorous physical activity. This is likely to be particularly important in areas that currently have limited access to green space.
- Local Plan Allocations work is currently reviewing the mapping of existing green space and then looking at future provision. This will develop the spatial picture following the strategic policies in the adopted Core Strategy.
- Public Health have led a comprehensive review of the evidence on what makes a healthy place, including the role of green space. This has gathered learning from innovation in the UK, and in other global cities and urban Districts to develop 10 principles for planning a healthy place (in draft). These will support work to ensure that the development of a housing design guide for the District, and a Top of Town Masterplan will support people's health and wellbeing.

- The Parks and Greenspaces Service is currently preparing a Playing Pitch Strategy (PPS) to evidence current and future need enabling the District to ensure it has sufficient playing fields to meet current and future needs for local areas and communities. The PPS will support District Plan outcomes and the Active Bradford strategy which include the relevant sporting strategies for the district including the Physical activity and Sport Strategic Framework for the District.
- A joint project “*Inspiring People*” with the Yorkshire Wildlife Trust, provides a project officer to work in urban nature areas in Oakenshaw, Great Horton and Buttershaw, to encourage local communities to use and value these spaces and look after them. There have been a number of successful events, using play, nature conservation, and the arts as themes to get local people involved, providing valuable insight in how to make these sites more inviting and accessible.

3.5.3 *Upcoming opportunities to extend use of green space*

- As a Sport England pilot site for increasing levels of Physical Activity in England, the District has a major opportunity to link this work to increased levels of outdoor physical activity, and particularly with extended use of green space. One of the strongest messages of the World Health Organization review is that listening to communities is essential, to understand what prevents people being more physically active, and what could work for them, potentially by increasing the variety as well as number of opportunities for physical activity in parks and green spaces.
- Two bids for external grant monies are being prepared by the department of Place: one to support the development and enhancement of green-blue infrastructure along the Canal Road corridor, and one to support improvements to Horton Park that would include flood management works as well as improving green space. The Horton Park bid is informed by community engagement work carried out by Born in Bradford.
- The development of Forest schools in the District is helping very young children to connect with nature and spend more time outside.
- Walking for Mental Health, in partnership with Sharing Voices has a new programme focused on engaging people with mental health from BAME communities by providing walks around accessible open spaces in Bradford including Lister Park, Bolton Abbey, Haworth. It has engaged 19 people to date.
- The Healthy Bradford team, working in close partnership with the Self Care and Prevention Programme is establishing a programme of works to address the root causes of unhealthy lifestyle behaviours. The team will be promoting national health and wellbeing initiatives about getting outdoors and being active, including the message that 10 minutes brisk walking counts as exercise, and that one of the ‘Five

Ways to Wellbeing' is to 'be active'. Achievements to date include that pupils in 37 schools across the District are now doing the Daily Mile.

- 'Social prescribing' of non-medical interventions could help to link more people to green and active community 'wellbeing' groups, helping to get people who need support to improve their wellbeing to be outdoors and active.
- New urban residential and commercial developments are likely to bring both challenge and opportunity to include green space or green elements on-site to support the health and wellbeing of residents and staff. Development of the District's first Housing Design Guide and a Masterplan for the Top of Town will provide guidance on inclusion of green space.
- Born in Bradford will be involved in development of the Top of Town Masterplan, working with local children and young people to ensure that their views and experiences are heard and that the Masterplan will support their health and wellbeing.

3.6 Summary – key lessons from the evidence

3.6.1 Bradford District is no different to other areas in that people living in some of our most deprived communities have less access to green space.

3.6.2 With excellent access to green space and open countryside in some parts of the District, and large, high quality green spaces and parks in some urban areas there is an argument for focusing on the areas where green space is lacking, whilst seeking to maintain and increase access to existing green space amenities by a wider range of people. This would help to reduce inequalities and improve wellbeing.

3.6.3 The quality and perceived safety of green space is absolutely key to whether or not people are happy to use it, meaning that some areas of green space are likely to be under-used and the public may not be getting the maximum benefit from them.

3.6.4 The most valued, and most sustainable initiatives tend to be those where local people are involved in prioritising, planning and delivering projects, making it more likely that limited resources are used effectively, in ways that communities welcome, support and will make use of.

3.6.5 Refurbishment of under-used green space alone may not be enough to increase usage, well-targeted advertising and specific events help to encourage people to come into green-spaces. This is particularly likely for green space that does not have a clear, current purpose or is perceived as unattractive or unsafe.

3.6.6 Integrating the approach to green and outdoor space with urban development, travel and infrastructure projects, such as flood management projects can help to identify opportunities to develop new green and outdoor space for leisure and exercise, but should meet community needs and seek their support. An integrated approach can also help to

remove barriers to access such as poorly sited crossing places which discourage people from walking to outdoor leisure destinations.

3.6.7 If financial constraints limit or delay our ambition to create or refurbish areas of green space where it is lacking, the evidence supports the value of undertaking smaller scale, community-led initiatives. These could include collaborations between communities and local businesses to support schemes through commitment of materials or staff time to work alongside local residents.

3.6.8 These should be devised by and with communities, and could include initiatives to plant and maintain greenery to soften urban streets and hard-landscaped open spaces or to bring small areas of unused urban space into community use and to decide a clear purpose for them, perhaps as 'micro-parks' or 'parklets' in areas where green space is lacking.

3.6.9 Play spaces that include natural elements as well as conventional and accessible play park equipment can encourage children to play actively and creatively, children are creative and can make play opportunities from basic materials, in all sorts of settings as long as the spaces are safe and the adults who care for them perceive them to be safe.

4. FINANCIAL & RESOURCE APPRAISAL

4.1 Tackling public health issues requires long term commitment and investment. Much of this already exists and is directed towards activity which will positively influence this indicator. This includes Council investment as well as external funding from central government departments. Additional resource is likely to rely on external funding. Green space is listed as a matter that local authorities are able to fund through Community Infrastructure Levy and Section 106 monies.

5. RISK MANAGEMENT AND GOVERNANCE ISSUES

5.1 None

6. LEGAL APPRAISAL

6.1 Part 1 of the Health and Social Care Act 2012 (the Act) places legal responsibility for Public Health within Bradford Council. Specifically Section 12 of the Act created a new duty requiring Local Authorities to take such steps as they consider appropriate to improve the health of the people in its area. The Public Health department in the Local Authority supports the performance of this duty.

6.2 Section 31 of the Act required Local Authorities to pay regards to guidance issued by the Secretary of State for Health when exercising their public health functions and in particular Local Authorities are required to have regard to the Department of Health's Public Health Outcomes Framework.

7. OTHER IMPLICATIONS

7.1 EQUALITY & DIVERSITY

7.11 Access to outdoor space is not equal across the population of England. National research shows that people living in the most deprived areas and that people of Black and Minority Ethnic origin on average are less likely to have access to green areas, and therefore less opportunity to gain the health benefits compared to people living in more affluent areas. Local research cited in this report largely confirms this picture for Bradford District, with less accessible green space in less-affluent areas and areas with a higher Asian/Asian British population.

7.2 SUSTAINABILITY IMPLICATIONS

7.21 Protection and maintenance of green infrastructure will be important for future residents of the District. Demographic, environmental and economic pressures are liable to persist into the mid 21st Century. The report highlights the need to recognise the contribution of green spaces for health outcomes. A sustainability oriented policy approach will ensure that green space is safeguarded for future generations. Green space is being increasingly seen as an important protective and resilient infrastructure to buffer populations against climate impacts. Its value will increase as climate impacts worsen.

7.3 GREENHOUSE GAS EMISSIONS IMPACTS

7.31 Actions to improve utilisation of green spaces may reduce greenhouse gas emissions. Active travel is a low cost abatement option which, if effective could significantly reduce green house gas emissions. Local environmental improvement and social activity to increase active travel are intrinsic to this approach. More broadly, green house gases are embedded in natural assets and degradation of these assets will also result in emissions.

7.4 COMMUNITY SAFETY IMPLICATIONS

7.41 In broad terms, perception of safety and security within residential and community environments can be influenced by proximity and access to good quality green space. It is important that people feel safe in their local green spaces, this is integral to communities' willingness to use local green assets and to allow children to use them.

7.5 HUMAN RIGHTS ACT

7.51 None

7.6 TRADE UNION

7.61 None

7.7 WARD IMPLICATIONS

7.71 PHOF indicators are complex and are influenced by differences in economic, cultural and social factors across populations and communities. Across the 30

wards of Bradford, achievement against each of the indicators will vary substantially. Further mapping of green infrastructure by ward would add to the current picture of assets and equality of access.

7.8 AREA COMMITTEE ACTION PLAN IMPLICATIONS (For reports to Area Committees only)

7.81 None

8. NOT FOR PUBLICATION DOCUMENTS

8.1 None

9. OPTIONS

9.1 None provided

10. RECOMMENDATIONS

10.1 The views of the Environment and Waste Management Overview and Scrutiny Committee on the matters set out in the report are requested.

11. APPENDICES

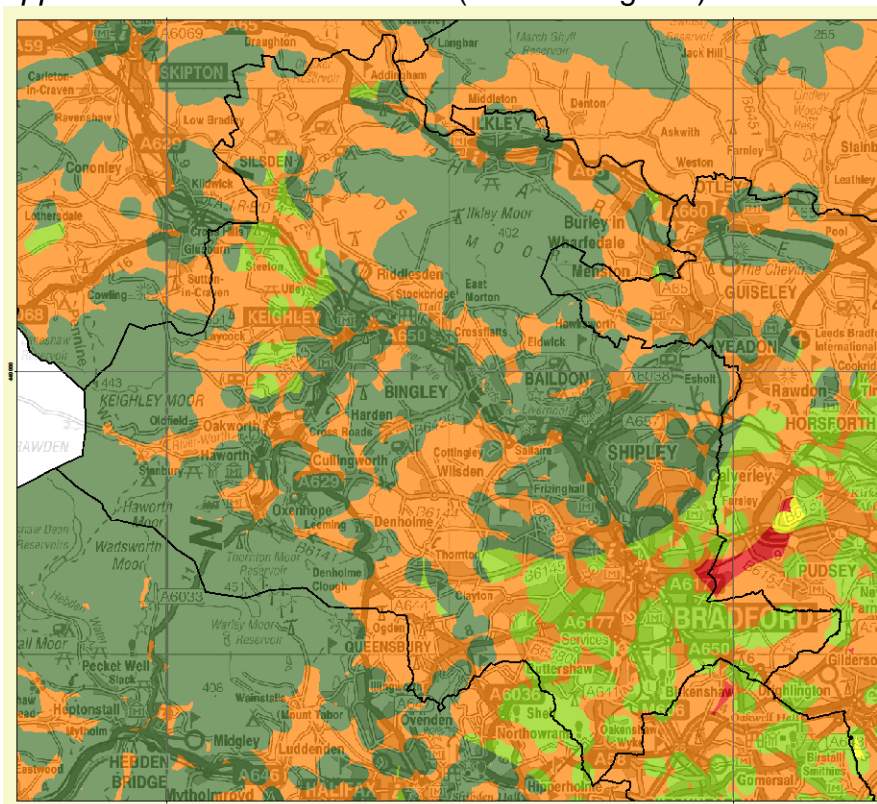
11.1 Map 1: Accessible Natural Green Space Standards (ANGSt) applied across Bradford District (Natural England).
Map 2: Index of Deprivation 2015 – Bradford District.

12. BACKGROUND DOCUMENTS

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<http://www.sciencedirect.com/science/article/pii/S0169204618300951>

Map 1: Accessible Natural Green Space Standards (ANGSt) applied across Bradford District (Natural England)

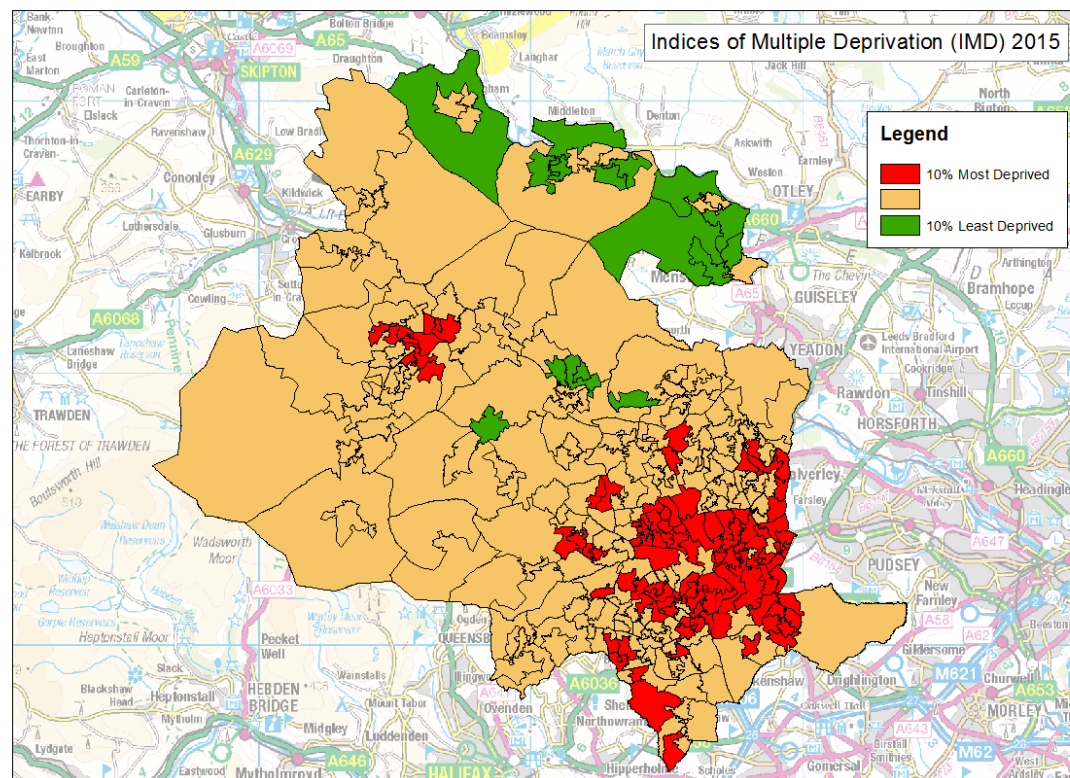


Map 1 Key:

Green areas: a range of green spaces such as parks are easily accessible: Ilkley, Bingley, Baildon, Shipley, parts of south-east Bradford.

Yellow/orange/red: no reasonably sized park within 300 metres: large parts of Bradford City, Keighley, Cottingley, Wilsden, Denholme, Queensbury, parts of Thornton, Clayton, Silsden, Menston, south-east Bradford.

Map 2: Index of Deprivation 2015 – Bradford District



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Public Health Analysis Team, Bradford

Map 2 Key: **Green**, 10% least deprived. **Red**, 10% most deprived.