

London Borough of Haringey

Zero by 2050

A Manifesto to Deliver Sustainable
Regeneration in Haringey



Autumn 2017

Foreword from Andrew Gould, Chair

It takes a major slice of courage for a leading local authority to put its sustainable development vision and credentials up for review by a group of built environment experts. Yet that is exactly what Haringey Council has done. This report sets out the findings of a group of eminent professionals who comprised a commission, brought together with the aim of challenging and assisting Haringey Council to set an ambitious vision for sustainable development across the borough. The commission was set up early in 2016 and through a series of study tours, workshops and review sessions with Officers and Members produced this report, with support from the Sustainably Advisory team at Knight Frank.

The panel the Council brought together has been simply outstanding: it combines deep and world class expertise in just about every facet of urban sustainable development. The range and detail of this report is down to their generous and unstinting commitment to the review process over a six-month period and we owe them a huge thank-you.

This Commission set out not to create a theoretical analysis, but to produce a report that was grounded in the practical challenges Haringey faces, with a clear set of priorities and a route map to address them. The key issues and themes that emerged are set out clearly and each has a set of actions and milestones. The themes it identifies are cross cutting and broad. They go to the heart of the issues: health, wellbeing, prosperity in a world of rapid technical change, and addressing climate threats and adaptation. These threats are very real - but the possibilities that open up for the borough are immense. The Council has already adopted a leadership position in relation to these issues and if it can drive through its serious commitment into practical action it will create real opportunities for those who live and work here.

The Commission has been challenging and aspirational - and for that reason has sub-titled this report "a manifesto to deliver sustainable regeneration". This report challenges the Council and Borough through the process of regeneration, and commend the officers and members for being open and receptive to that. As an independent panel the Commissioners have also said that they would be prepared to "hold the Council's feet to the fire" on the implementation of these recommendations, against regular monitoring of progress. Alongside this several of the Commissioners are keen to work with the Council to provide support and advice to ensure that the recommendations and actions are delivered.

We look forward to seeing the sustainable future of Haringey being delivered.

Andrew Gould – Chair

Foreword from Cllr Natan Doron

Haringey faces a range of challenges: we need to build more, better housing for a range of different people at different points of the affordability scale and in various tenancy types; we need to create more jobs for a range of different people at various points in their career and on the income scale; and we need decarbonise our local economy and create cleaner, greener ways of living and travelling.

We cannot ignore these challenges. We must face them all at the same time. And we must focus on solutions, not just what looks good in a textbook but what works and makes an impact in the real world.

The scale of planned regeneration in Haringey is our biggest environmental threat but crucially, our biggest opportunity too.

Haringey holds the pen on a key chapter in the story of London's regeneration, but no regeneration can be done by a local authority in isolation. That's why our future here is underwritten by big investment by the local authority it is also supported by the Mayor of London and the private sector. Haringey's Housing Zone status and new infrastructure such as Crossrail 2 will accelerate the opportunities to regenerate and build.

If we and our partners both public and private plough ahead with regeneration that recreates older, high-carbon ways of living, we would have failed in our responsibility to the people of Haringey – both those living here now and future residents in decades to come.

For this reason I brought together a Commission to support our ambition and to aid Haringey in delivering a more sustainable borough. This Commission represents the main output of my work as Cabinet Adviser on Carbon Reduction. The Commission was designed to be a group of independent experts with experience in delivering green buildings, sustainable master-planning, community development, transportation, landscaping, health and welfare, and addressing the challenges around Climate Change. I asked them to review the Regeneration Programme for the borough and ensure that the future environmental challenges are being addressed. To set out recommendations for the Council and borough that will help us deliver our ambition. And to build on the success the borough is already delivering.

The Commission have achieved this. They have considered the challenges facing the borough, and understood the ambition we have set ourselves. They have set out 7 recommendations and associated actions, alongside the justification to deliver on them. They have given us examples of where this is being delivered to show and support our own delivery plans. To ensure action, they have said that they will monitor our progress, and to support us they have said we can call upon them in the future for advice.

In receiving these recommendations and actions the Council will consider them and report back. The Council will publish our response and then work with our partners to deliver on them. I thank the Commissioners and all who have been involved in this report and all those who will support our delivery on this work. I would also like to thank hardworking and brilliant Haringey officers Joe Baker, Zoe Sellers, Beth Kay, Dan Hawthorn, Emma Williamson, Stephen McDonnell, Erica Ballman, Sally Lowe, Dionne Maxwell, Joe McBride and Matt Brenan for their work in supporting this Commission up till now and the work they will do in future to implement new policies and practice that brings the vision of this report to life.

Cllr Natan Doron

Contents

Executive Summary	4
The Borough of Haringey - Overview	5
Panel Sessions	6
1.1 Meeting One: Tottenham Town Hall	7
1.2 Meeting Two: Wood Green	7
1.3 Meeting Three: Alexandra Palace	8
Commissioners	9
The Outcomes from the Commission	11
The Key Themes	
Recommendation 1 - Delivering Health and Wellbeing Improvements	12
1.1 The Challenge	13
1.2 Milestones	14
1.3 Principal Aims	15
1.4 Actions & Milestones to improve Mental Health & Physical Activity	15
Recommendation 2 - Climate Change Adaptation	16
2.1 The Challenge	16
2.2 Challenge: Surface Water	16
2.3 Challenge: Open Spaces	17
2.4 Challenge: Overheating	17
2.5 Challenge: Community	17
2.6 Milestones	17
2.7 Principal Aims	17
2.8 Actions & Milestones to address a Changing Climate and Deliver Resilience	18
Recommendation 3 - Delivering a Zero Carbon Borough	19
3.1 The Challenge	19
3.2 Milestones	20
3.3 Principal Aims	20
3.4 Actions & Milestones to deliver carbon reduction	21
Recommendation 4 - Tackling Waste	22
4.1 The Challenge	22
4.2 Milestones	22
4.3 Principal Aims	23
4.4 Actions & Milestones to improve Waste & Recycling	24

Recommendation 5 - Embedding Clean Technologies	25
5.1 The Challenge	25
5.2 Milestones	25
5.3 Principal Aims	26
5.4 Actions & Milestones to increase the use of Clean Technology	26
Recommendation - Creating Zero Carbon Buildings	27
6.1 The Challenge	27
6.2 Milestones	28
6.3 Principal Aims	28
6.4 Actions & Milestones for New Build and Retrofitting	29
Recommendation 7 - Delivering Sustainable Transport	30
7.1 The Challenge	30
7.2 Milestones	31
7.3 Principal Aims	31
7.4 Actions & Milestones to improve Transport & Connectivity	31
Conclusion	32
Appendix A - Case Studies	33
Health & Wellbeing	33
Climate Change & Resilience	34
Carbon Reduction & Energy	35
Waste & Recycling	36
Clean Technology	37
New Build & Retrofit	38
Bullitt Center	39
Transport & Connectivity	40
Oxford Street	41
Urban Planning	42
Hackney Wick	43

Executive Summary

In 2012, Haringey Council published the report of its Carbon Commission, setting a clear roadmap to deliver its ambition – unique among London's local authorities – to reduce the borough's carbon emissions by 40% by 2020. Since then the original 40:20 commitment has been incorporated in the Council's Corporate Plan, and the Annual Carbon Report has followed every year since as a way of transparently reporting on progress. At the same time, the Council has continued to test the limits of what a local authority can do to lead a local carbon reduction effort, for example through its pioneering partnership with Durham University to drive innovation and research in local carbon reduction, and by leading a six-borough partnership to tackle the poor energy efficiency of north London's homes and business premises.

Two years later, after the 2014 local elections and, at the request of the Leader of the Council, this work was initiated: to consider what else could be done to keep Haringey at the cutting edge of local leadership in carbon reduction. Keen to give this work some specific focus, and with Haringey's regeneration plans increasing apace, we decided to focus specifically on the challenge of making Haringey's significant growth and regeneration as low carbon as possible.

The time is right for this work. The new Mayor of London has stated his ambition for London to be zero carbon by 2050. Haringey is clear in its determination to take a lead among London boroughs in delivering that vision. At the same time, the Council is in the early stages of a major development and regeneration programme, most notably in Tottenham and Wood Green. This work comprises development and regeneration on Council-owned land, including major housing estate renewal – much of which will be driven by the Haringey Development Vehicle (HDV), a joint venture between the Council and Lend Lease – as well as major investment by the private sector and registered housing providers. The result will be thousands of new homes and jobs in Haringey over the next 25 years.

We have badged this work as the 'Haringey Zero-Fifty Commission', reflecting both the Mayor's ambition, and the timescale of Haringey's regeneration plans. Our primary aim was always to make practical but ambitious recommendations to Haringey Council and its partners; we know some will be harder to deliver than others, and that some will take time to enact, and we make no apology for that. We also think the potential impact of our findings could be much wider. We hope any local authority with growth ambitions and a commitment to sustainability – whether in or out of London – will take a close look. As the Mayor of London formulates his own plans for a Zero Carbon London, we hope our findings might be of interest to him and his team. Last but not least, we hope there is something here for any private developer or registered housing provider who wants to differentiate their offer by getting ahead of the game on carbon reduction and sustainable development.

We were delighted and honoured to have been joined on the Commission by such a breadth and depth of expertise in the fields of development and sustainability, and would like to record our sincere thanks to our Commissioners who gave so much time and energy to make this project a success. Thanks also to the team at Knight Frank that facilitated the Commission and helped prepare this report, and to the officer team at Haringey Council who have done so much to bring this work to the brink of publication.

The Borough of Haringey - Overview

Haringey covers an area of more than 11 square miles (28.5 km²). Some of the more familiar local landmarks include: Alexandra Palace, Bruce Castle, Jacksons Lane, Highpoint I and II, and Tottenham Hotspur Football Club.

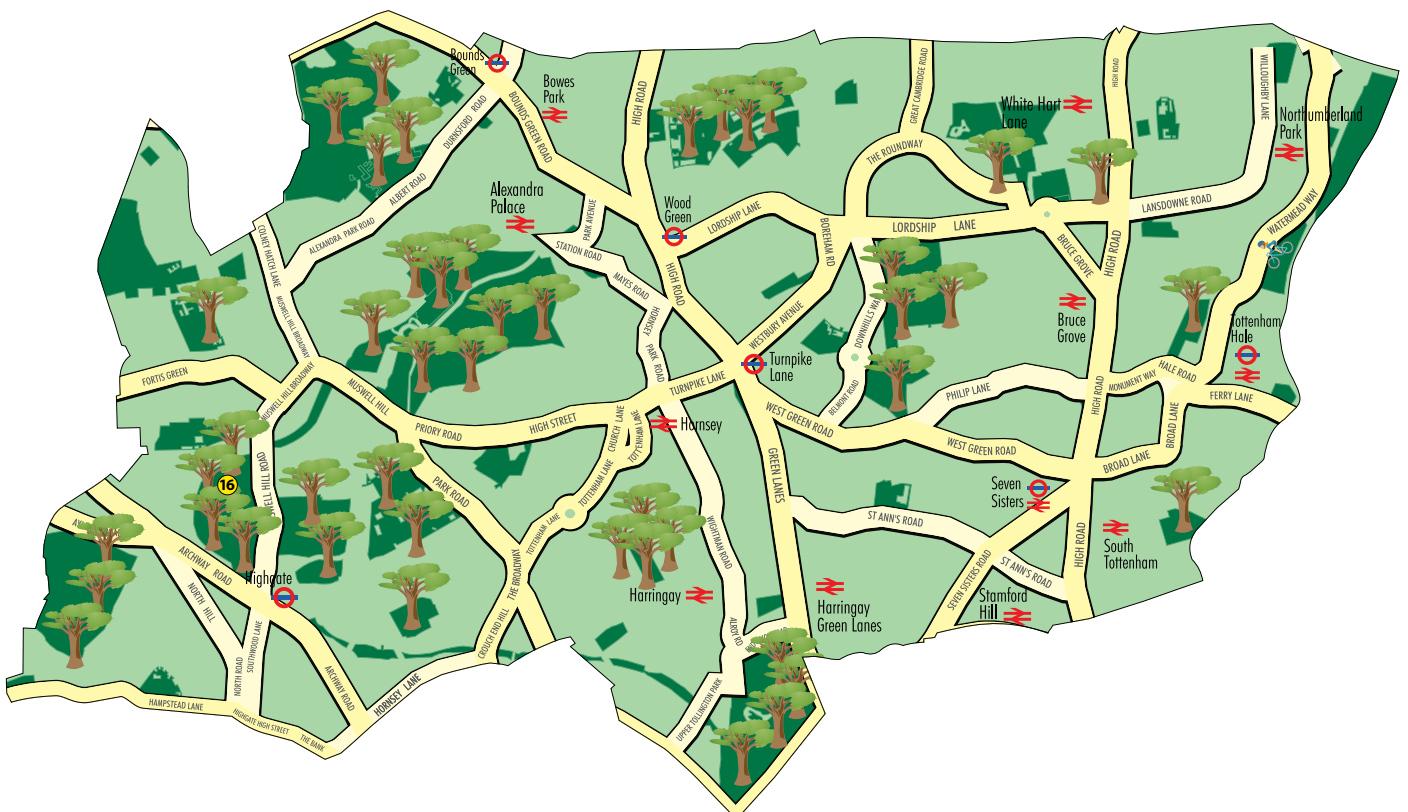
The borough has extreme contrasts: areas in the west, such as Highgate, Muswell Hill and Crouch End are among the most prosperous in the country; in the east of the borough some wards are classified as being among the most deprived 10% in the country. From the wooded high ground around Highgate and Muswell Hill, at 426.5 feet (130.0 m), the land falls sharply away to the flat, open low-lying land beside the River Lea in the east. The borough includes large areas of green space, which make up more than 25% of its total area.

The Council has set out its ambition for the future: including skills, economic development and growth, though its Economic Development and Growth Strategy, and local Planning Documents. These strategies ensure that the regeneration happening in Haringey will translate into greater opportunity and prosperity for the borough's residents, and that growth is delivered in a responsible manner in line with local ambitions.

This commission complements these key strategic documents, and the Council's own Corporate Plan. These documents highlight the huge opportunities in the borough, with Crossrail 2, new and emerging technology companies choosing to be based here, and over 15,000 new homes in three areas of the borough, Tottenham Hale, North Tottenham and Wood Green, to be built.

Haringey is an exceptionally diverse and fast-changing borough. It has a population of 267,540 according to 2014 Office for National Statistics Mid-Year Estimates. Almost two-thirds of its population, and over 70% of young people, are from ethnic minority backgrounds, and over 100 languages are spoken in the borough. Its population is the fifth most ethnically diverse in the country.

The population of Haringey is growing, and GLA figures (2015) show that the borough's population is estimated to reach 286,900 by 2020, an increase of 5.9%. By 2025, Haringey's population is estimated to reach 300,600, an increase of 10.9% from 2015. This population growth locally is due to higher birth rates, and immigration, driven by high levels of international immigration.



Panel sessions

The Council put together the Zero-Fifty Commission, to review and identify priorities and actions for ensuring that the physical and economic regeneration of the borough is low carbon, environmentally sustainable, low pollution, and supports the green spaces of the borough.

This expert panel, over the course of three half-day sessions, worked to define and articulate the ways in which Haringey could drive regeneration whilst ensuring economic dynamism and social equity, whilst also making a major contribution to reducing carbon emissions locally.

Specifically, the panel was tasked to:

- Understand the challenges faced by Haringey and its regeneration, economic development and environmental ambition;
- Analyse key thematic strands that impact on major regeneration programmes;
- Agree high level recommendations for the Council to deliver sustainable regeneration fit for the 21st century.

In undertaking this work the Commissioners were asked to:

- Be independent of the Council;
- Actively seek out and listen to a range of views, building on existing knowledge and networks from across the Council, to offer a challenge to the Council to improve;
- Draw conclusions and recommendations based upon analysis of evidence, sought from a wide range of sources.

The Commissioners met three times over the course of a six month period and engaged with each other outside the sessions to formulate their recommendations.

During the sessions the Commissioners heard from local politicians, community leaders, and Council officers about the challenges and opportunities within Haringey. They were also given the opportunity to visit the major proposed regeneration sites.

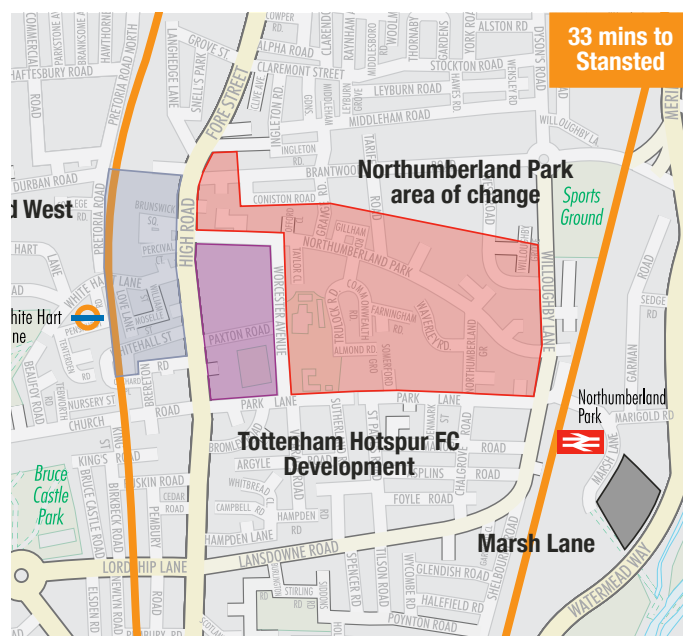
1.1

Meeting One: Tottenham Town Hall

Council leader Cllr Claire Kober, and former Chief Executive of the Council, Nick Walkley, set out the terms of the Commission and its importance in informing the work of the Council. They encouraged the Commissioners to challenge and set targets for the Council to work towards.

Cllr Natan Doron outlined how Haringey is committed to reduce CO₂ emissions 40% by 2020, and aims to become zero carbon by 2050. Highlighting that regeneration can be a risk for these targets, he tasked the Commissioners with thinking about how Haringey could regenerate the urban environment and reduce carbon at the same time.

Northumberland Park Regeneration Area

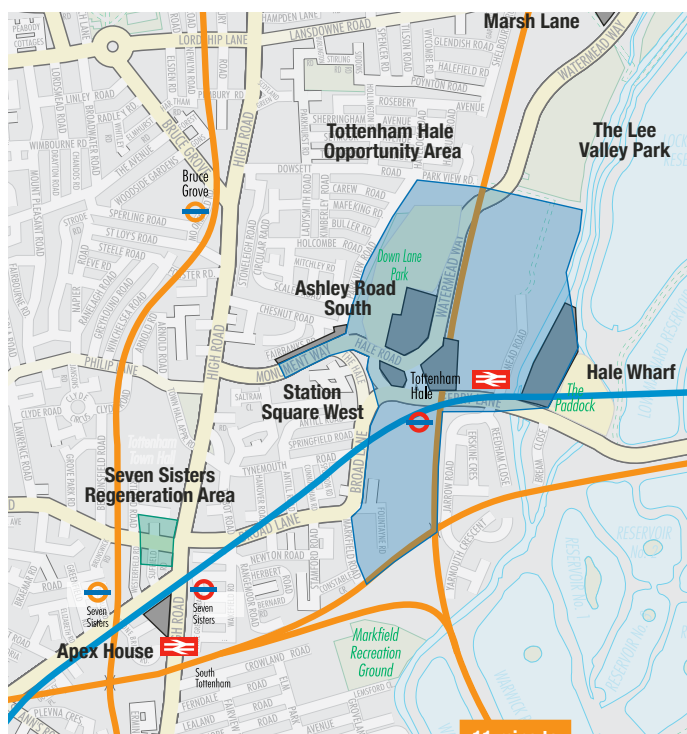


Cllr Joe Goldberg conveyed the importance to Haringey of keeping true to its responsibilities towards its constituents, as well as protecting its history and core values. He highlighted the clear divide in the quality of life between west and east in the borough. He also highlighted that Tottenham was historically a community of artisans and that the regeneration needed to ensure this was not lost. He talked about

the importance of density, jobs, and local amenities for residents, to ensure Haringey did not lose its character and become a dormitory town.

1.2 Meeting Two: Wood Green

Tottenham Hale Regeneration Area



The Commissioners identified key themes that would structure the challenges and deliver a report that the Council would be able to publish and implement. The recommendations would be based around these 7 themes:

- Mental Health & Physical Wellbeing;
- Climate Change & Resilience;
- Carbon Reduction & Energy;
- Waste & Recycling;
- Clean Technology;
- New Build & Retrofit; and
- Transport & Connectivity.

Andrew Gould, the Commission Chair, stressed that the Commission would challenge Haringey and highlighted the interest in reconvening in a few years' time to assess how the Council had implemented the recommendations of the report. Nick Walkley agreed and stated it was right and proper to have a mechanism to hold the Council to account.

During the second session the Commissioners debated and agreed upon the general principles of the report.

With a key driver of this work being the regeneration opportunities in the borough the Commission discussed at length the importance of fostering property developer appetite and enthusiasm to deliver low carbon properties. And the need for Haringey Council and residents to be bold in asking property developers to raise their game and break out from the usual development norms.

- **Vision:** Explain the zero carbon vision of the Council in a way that people understood, ensuring people bought into the vision;
- **Cross-cutting:** For the Commission report to cross-cut Council activities and to include all departments within the Council;
- **Value:** The benefits of low/zero carbon development (including Mental Health and Physical Wellbeing benefits) should be mapped within the development areas, and go beyond the red line boundary of an individual site, to show the overall positive impact on the broader area;
- **Procurement:** There is a need to influence Council procurement to help achieve the report's recommendations and to understand what could be practically included in tenders;
- **Leadership:** The Council should ensure that all buildings Haringey Council own or occupy meet the highest standards, as set out in the report's recommendations, and lead by example;
- **Co-design:** The commission discussed the need for co-design processes to work with the community, involving residents in a transparent way, not excluding them and making urban design the privileged activity of distant architects, designers and developers;
- **Transparency:** The Council to transparently report the recommendations of the panel, to highlight confidence and ambition, and maximise the recommendations impact potential;
- **2050:** The report and recommendations need to be seen as both long-term and short-term. Decisions made today need to have 2050 in mind, but it is only one generation away and action and leadership have never been more urgent.

Conclusion

The Commissioners concluded it was important to demonstrate that the themes recommended were interconnected, and that the Zero-Fifty report should apply to the whole borough, not just the regeneration areas. The Council needs to support the community in challenging property developers and heightening development aspirations, not settling for the status quo.

1.3 Meeting Three: Alexandra Palace

At the final Commission meeting at Alexandra Palace the Commissioners focused upon three main areas:

1. How to embed recommendations within the mind-set of Council officers, and to challenge the Council as to how they will achieve the recommendations;
2. Create a high level narrative within the Council and the community to get buy in;
3. Provide detail on the Council's level of aspiration for low carbon regeneration.

The Commissioners felt that the upside of sustainability would be an overall increase in value rather than a cost, and that the Council needed to focus on this point to increase buy in and create a positive environment for change.

This report creates "A Manifesto for the Next Generation Haringey" focusing upon the outcomes that the Commissioners felt Haringey should aim for.

The report should also focus upon how the Council would achieve these outcomes through a "Matrix of Actions": focusing on the short, medium and long term. The Commissioners felt that the Council would need to take these recommendations away and develop a project plan for each action and an overall route map that coordinated all of them.

The message the Council needs to impart is that they are prepared to "Invest in the Future."



Commissioners

The Commissioners were chosen and invited to join the panel because of their skills and experience in delivering regeneration projects in and around London, and their work within the Sustainable Regeneration sector. The Commission included:

Andrew Gould (Chair)

Andrew is a leading figure in the real estate and built environment sector. His business Genr8 Developments, a leading urban regeneration company, delivers sustainable urban renewal projects in UK Cities. Andrew was formerly UK CEO of Jones Lang LaSalle.



Andrew was educated at the University of Wales, the University of Cambridge, where he was awarded his PhD, and at London Business School.

Andrew Chairs the UK Green Building Council, which leads the campaign for a more sustainable built environment. He is a Fellow of Hughes Hall, University of Cambridge, a member of the governing Council of University College London and a Fellow of the RSA.

Dan Epstein

Before founding Useful Projects, Dan was the Head of Sustainable Development and Regeneration for the London 2012 Olympic Delivery Authority (ODA).



A recognized thought leader in this area he regularly speaks on major platforms around the world and is highly regarded for the way in which he manages to develop and deliver imaginative and practical sustainability solutions.

Noel Farrer

Noel is a landscape architect and urban designer who has run his own award winning practice for 20 years, delivering projects ranging from large scale residential master-planning, to housing, education, parks and public realm. He is recent Past President and Fellow of the Landscape Institute, where he campaigns for landscape-led place-making.



As a passionate advocate for the social importance of high quality landscapes, he is a member of the Government's (DCLG) Design Advisory Panel for Housing, CABE's Infrastructure and Design Panel, as well as other regional panels.

David Ubaka

David is an independent project implementation, and design consultant. He has clients in both the public and private sectors advising on: Housing, Transport, Commercial, Retail, Hotel, Public Realm and Urban Regeneration projects.



Prof Sarah Wigglesworth MBE

Sarah is director of her own London-based architectural practice. She has extensive expertise in green and sustainable design and master-planning. Working in the educational sector, community projects, master-planning, and cultural and housing sectors, her practice draws on engagement with communities to create places that are loved by their occupants, simple to use, and economical to run and maintain. Sarah was awarded a MBE for her services to Architecture and appointed Royal Designer for Industry by the RSA in 2012.



Prof Derek Clements Croome

Professor Emeritus Derek Clements-Croome at Reading University worked in the building design and contracting industry before entering university life to research and teach in the area of architectural engineering.



He now offers strategic advice to clients, designers and facilities managers on attaining and managing healthy and sustainable environments in buildings of all types.

Derek is a Commissioner on air quality for the borough of Hammersmith and Fulham. He is also Building Environmental Expert for CABE; and a Fellow of the BRE Academy.

Quentin Given

Quentin has been active in local environmental issues for 25 years. As environmental health manager he helped develop Camden's first climate action plan. As a local Friends of the Earth activist he has long argued for tougher environmental planning policies. He helped secure Haringey's commitment to cutting emissions by 40% by 2020, and most recently the decision to shift over £200m of its pension fund into a low carbon index.



Tom Armour

Tom is a Director and Leader of Global Landscape Architecture at Arup, developing it into an internationally award-winning business. He plays a key role in developing Arup's research and thought leadership in the field of landscape architecture, green infrastructure, resilience, and well-being, particularly in relation to contemporary issues facing urban environments.



Tom holds leadership roles in the delivery of the landscape design for two of the biggest UK projects in recent years, the London Olympic Park (South) and High Speed 1 rail link.

Polly Billington

Polly Billington has 15 years' experience as a journalist and is a professional campaigner committed to shifting the UK economy to clean energy, establishing the UK100 - a network of cities and authorities committed to 100% clean energy.



She was a special adviser to Ed Miliband when the Department of Energy and Climate Change (DECC) was established, and as Leader of the Opposition. She was Director of Communications for Sadiq Khan's campaign to be Labour's candidate for London Mayor, and influential in getting the Mayor to commit to adopting 100% clean energy.

Linda Thiel

Linda Thiel is a London-based Scandinavian architect with 20 years' experience in architecture, including urban development, residential, mixed-use, public buildings and commercial offices. All of the projects Linda has worked on have focused on environmental, economic and social sustainability as an integral part of design.



Martin Townsend

Martin joined BRE (Global) as Director of BREEAM in 2008 to drive BREEAM forward, not just in the UK market but also internationally. Martin works closely with the construction industry bringing sustainability issues alive, across the Social, Economic and Environmental agendas.



Yates Buckley

Yates Buckley is a founding partner at unit9, bridging the technology to creativity gap in award winning digital production work over the last fifteen years. His focus is on balanced perspectives in technology transfer: new enabling tools and expressive media with effective reach. Yates is interested in the diverse boundaries of technical experience, the area of neuroscience and game-design, especially as a motivator for health and human computing problems.



The Outcomes from the Commission

The Commissioners have produced a set of clear and specific recommendations, and examples to demonstrate that change can be delivered with strong leadership alongside focused action.

These are formed around the following seven themes:

1. Mental Health & Physical Wellbeing;
2. Climate Change & Resilience;
3. Carbon Reduction & Energy;
4. Waste & Recycling;
5. Clean Technology;
6. New Build & Retrofit; and
7. Transport & Connectivity.

These are expanded in individual chapters in this report, alongside recommendations in each chapter for the Council to consider and respond to.

Alongside the 7 key themes above, there are several cross-cutting themes and actions that the Commissioners ask the Council to consider.

These are:

- That the Council delivers leadership in the community. By leading through example and demonstrating positive actions and outcomes, the Council can inspire the community and empower the delivery of sustainability in the borough;
- That the Council uses its procurement and purchasing powers to deliver improved sustainability outcomes in Haringey. The Council purchases a range of goods and services, from energy, to the construction of new housing, these procurement activities need to take on board the recommendations of the Commission and use their purchasing power to deliver wider benefits to the local community;
- That progress of delivery against the recommendations of this Commission report should be monitored and reported upon;
- That the Council communicates and champions the recommendations and outcomes of the report in order to accelerate the delivery of sustainable regeneration in Haringey.



The Key Themes

Recommendation 1

Improve the health and well-being of the community by strengthening Haringey's natural environment; greening of outdoor spaces, and mitigating the urban heat island effect

Health and well-being are terms used to encompass a range of related and complex issues. Health encapsulates physical and mental health, whilst well-being addresses broader feelings or perceptions of satisfaction and happiness. The Commissioners discussed at length the requirement to improve local health in the borough, and highlighted the opportunities and challenges of the built environment and regeneration in improving mental health and well-being.

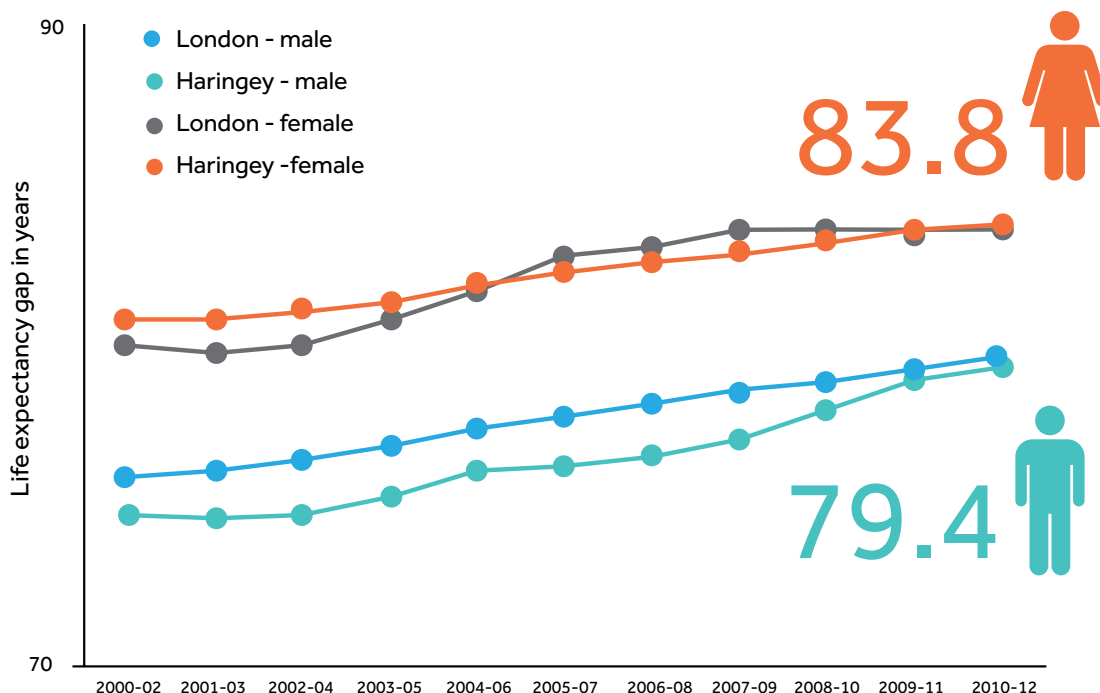
The built environment is not just the physical structures (buildings) where people work, live, play, worship and socialise. It is the connections between these spaces, including the built infrastructure (streets, cycle-ways, highways), natural features (parks, open spaces, green spaces, allotments) and spaces where people can mix and meet (stations, parks and public spaces). If well-

designed and linked across the borough as a 'green infrastructure network' all of these structures, spaces and routes have significant opportunity to add years to a life, alongside the ability to increase the well-being and happiness of residents and workers and to reduce fear.

Research shows the fundamental role that the natural environment plays, in the form of open spaces, green streets and public realm, in engendering well-being and positive mental health, particularly in urban areas but the natural environment is consistently undervalued in decision-making and in the planning and design of property projects. It therefore needs to be re-thought as 'critical infrastructure' across the borough with the planning and design of green space, and connections between them, being considered as an equal partner with other infrastructure requirements.

The natural environment in the form of a connected green and blue infrastructure network can provide a multitude of benefits not only for health, well-being, and biodiversity, but to also help combat the effects of climate change and build resilience across the borough into the future.

This includes integrating flood storage/increased run-off, reducing air pollution, reducing the urban heat island effect, reducing noise, and improving local micro-climates.



1.1 The Challenge

Life expectancy in females in Haringey (83.8 years) is the same as in London as a whole, and higher than the current average female life expectancy for England (83.0 years). Life expectancy for males in Haringey (79.4 years) is now slightly higher than the life expectancy average in England (79.2 years) but lower than the London average (79.7 years). In addition, men in Haringey only live 75.4% of their lives in good health, and for women the proportion of life spent in good health is only 71.8%. This compares poorly with London and England as a whole. So whilst life expectancy in Haringey over the last few years has shown improvement, a large proportion of that extended life is spent in poor health. (Haringey JSNA, 2015.)

The main causes of death for residents were disease of the circulatory system and cancer, which accounted for 62% of all deaths followed by respiratory disease (11%). The Commissioners drew upon international case studies where through behavioural changes and the design of the built environment urban areas have successfully addressed issues such as air quality, access to healthy food, and increasing physical activity. These are measures that could address some of the main causes of deaths in the borough and long term conditions. e.g. diabetes.

Alongside physical health impacts, the rates of severe and enduring mental illness in Haringey are high compared to London and England averages, and these tend to be concentrated in the east of the borough (Community Mental Health Profile, 2013). To improve the mental well-being of the community the Commissioners highlighted the need for social networks, physical activity encouragement, increased learning options, and engaging across the wider community. The Commissioners pointed to the work

the Welsh Government have done on 'Planning for Future Generations', as referenced in Appendix A.

The regeneration of an area can have major impacts upon local well-being, during all phases of development. Lack of local community control and involvement in the decision-making process has been found to have negative effects on mental health. Demolition noise and dust has particularly negative impacts on the elderly, whilst relocation has been linked to an increase in self-reported stress, anxiety and depression. In the longer term once new communities are built, with the inclusion of new safe green spaces, increased dwelling sizes, and wider community cohesion, they will deliver positive outcomes. A neighbourhood's physical characteristics may promote health by providing safe places for children to play, and for adults to exercise, that are free from crime, violence and pollution.

The Commissioners recognised that healthy urban planning in many ways is already delivered by the Council's planning and regeneration teams, through promoting sustainable development, enhancing green spaces, reducing pollution, and protecting residential amenity.

However, with increasing population densities and climate change there will be increased pressure on green spaces, and the impacts of noise are likely to increase. Alongside this is the pressure of smaller residential units, it was discussed that children living in overcrowded homes are up to 10 times more likely to contract meningitis and three times more likely to have respiratory problems. Over a lifetime, overcrowded homes have been linked with slow growth in children which correlates with an increased risk of heart disease as an adult. The pressure of limited land supply also increases pressure to develop next to pollution sites, such as next to major roads, which could impact on local health and well-being.



1.2 Measures

The Commission have suggested below a number of short, medium, and long term recommendations that the Council should consider.

It is recommended that progress against these recommendations should be measured through:

- Benchmarking NHS records of mental health and obesity;
- Benchmarking NHS records of respiratory illnesses;
- Benchmarking how 'happy' people are;
- Measuring the reduction in crime and fear of crime;
- Measuring the reduction in sick days taken;
- Listening to residents views in the borough.

1.3 Principal aims

Strong design and good planning can help reduce healthcare costs over time by preventing ill-health from risks attributed to urban planning, including air pollution, road injuries, mental and physical exercise, worklessness, and poor housing.

In reviewing the process and the opportunities associated with the three main regeneration areas of the borough (Wood Green, Tottenham Hale, North Tottenham) the Commissioners saw opportunities alongside the challenges, including the scale of the development opportunities, strong transport links and regionally significant parks on our door-step. Alongside increasing land values, it was proposed that the Council should be confident in asking for a higher design standard from property developers and to secure wider health and well-being benefits.

When reviewing and developing proposals the Council should push for lower car ownership levels and developments designed for pedestrians and communities rather than vehicles. This could involve making bold changes, such as those that have been seen through the closure of Wightman Road, which has created a positive local environment and increased local cycling rates.

There are opportunities to create new pedestrian and green links between new communities and destinations, alongside getting the most out of the

existing open spaces such as Alexandra Palace and the Lea Valley Park.

With the Mayor of London highlighting health concerns from poor air quality, there is a need for new places and space to address this concern through limiting the levels of pollution in the borough through tighter emissions standards, and reduced exposure rates.

A healthy home needs to have sound structure, be free of hazards, provide adequate facilities for sleeping, hygiene, be an environment for relaxation, for privacy and quiet, and to provide the facility for social exchange with community networks. Work by CABE has highlighted how additional space in homes results in broad health, wellbeing and quality of life benefits. It allows for families to stay within their communities longer, offering wider social well-being benefits.

Alongside the measures that will improve health and well-being for home occupiers, the Commissioners highlighted a 2013 World Green Building Council (WGBC) report entitled 'The Business Case for Green Building'. This framed research which demonstrated that green buildings could enhance health, wellbeing and productivity for their working occupants. This was linked to increased productivity of workers and increased spend profiles in retail areas. These economic drivers can therefore be the basis for better designed buildings whilst simultaneously growing the economic strength of the borough.

With the issue of health and wellbeing not yet seen as mainstream by the property development industry the Commissioners highlighted that to deliver this will take strong and confident leadership and partnership working.

1.4

Actions & Milestones to improve Mental Health & Physical Activity

Short Term

1. Set a standard for the amount of linked green/ natural space and connecting routes that must be within the curtilage of a development area, in accordance with World Health Organisation (WHO) standards.
2. Discourage private gated space, and ensure that the majority of green space and connections within new development is open to the public. Ensure green space is well connected, as part of green networks across the borough.
3. Explore the feasibility of calculating the net temperature increase resulting from a new development, and requiring the development to mitigate this gain through 'carbon sink' natural spaces.
4. Establish the 'Borough Green Grid'.

Medium Term

1. Formalise design criteria for public spaces that consider the importance of clear lines of sight, light, and greenery, for not just appearance but also safety and mental health.
2. Provide policy guidance to developers on how to consider Health and Wellbeing in design and construction.
3. Increase social cohesion by using infrastructure in open spaces that enable communities to mix and maximise open space use.
4. Haringey to set a target of open spaces by 2030, being managed and maintained by the communities they serve.

Long term

1. Set up a review process to continually develop the 'Borough Green Grid'.
2. Install air quality monitoring systems including encouraging people to use wearable air quality monitors to collect data/inform behaviour.



Recommendation 2

Create a climate change adaptation and resilience plan to future-proof and reduce vulnerability

Scientists, politicians, and the media have been engaged in lengthy debates about global climate change. Today the question is not whether human activity is causing climate change, but what we can do to prepare our homes, businesses and lifestyles for it.

2.1 The Challenge

The UK Climate Projections 2009 (UKCP09) have informed London's response to a changing climate. These projections show how the UK's climate is likely to change over the next century, but also provide greater detail regarding London's future temperature, rainfall and seasonal changes. They point to warmer and drier summers, and wetter winters, with appreciable changes seen by the 2020s.

UKCP09 suggests that London could:

- By the 2020s, see an increase in summer mean temperatures of 1.5 degrees Celsius, a decrease in average summer rainfall of 6%, and an increase in mean winter rainfall of 6%, all from a 1961–1990 baseline.
- By the 2050s, see an increase in mean summer temperature of 2.7 degrees, an increase in mean winter rainfall of 15% and a decrease in mean summer rainfall of 18%.
- By the 2080s, see an increase in mean summer temperature of 3.9 degrees, an increase of 20% in mean winter rainfall and a decrease in mean summer rainfall of 22%.

In response to these facts the built environment should be designed for the warmer wetter winters, and hotter drier summers that Haringey will experience over the lifetime of the buildings now being built. They should be designed to withstand the possible extreme natural hazards (such as heatwaves, flooding, and droughts) that may occur.

2.2 Challenge: Surface Water

These risks will undoubtedly impact Haringey, and at the first meeting in Tottenham it was highlighted that the borough slopes which means that water will run from west to east. Therefore the east of the borough (including Tottenham) is at greater risk from surface water flooding. At this time there are more businesses located in this area than in the west, which if flooded would have a major economic impact. If in the future this land is used for housing then there could be an increased risk to health and life. Alongside neighbouring authorities, all development should integrate flood water storage and management into their design, and most importantly the greatest possible quantum of porous surfaces.

2.3 Challenge: Open Spaces

Increased warmer and dry weather will increase outdoor activity. This could be beneficial for the borough through the increase in outdoor lifestyle choices, but during these periods there are often increased demands for Environmental Services to address issues such as noise and anti-social behaviour. Local authorities must work with the Department for Environment, Food and Rural Affairs (DEFRA) to implement the Government's Noise Action Plan and address the future challenges of noise pollution.

The Commission highlighted that parks and green spaces play an important role in addressing inequality. A 2007 survey of the UK public found that 83% of respondents believed that parks and green spaces provided a focal point for their local communities. This University of Sheffield research revealed that many of the focus group participants identified green spaces as "the hub or the spirit of their community". The Commissioners also highlighted the economic value of green open spaces, referencing an assessment of London house prices by the GLA in 2010, where it was found that property prices were boosted by local quality green spaces. The study estimated that property located less than a kilometre from quality urban park added up to 5% to the total property value.

2.4 Challenge: Overheating

Historically UK building design has been driven by the need for indoor thermal comfort in winter and by a desire for energy efficiency. There is evidence that some buildings, such as highly insulated lightweight buildings and buildings with heavily glazed facades, are vulnerable to summer overheating. Use of materials such as glass should be restricted and their use justified in order to avoid overheating.

Hotter, drier summers will exacerbate risks for all building types. Without planned adaptation to implement appropriate passive cooling measures, there is the further risk that the 'Urban Heat Island effect' would be exacerbated. Streets need shade and 'greening' to provide cooling, improve air quality, and mitigate noise. It is known that in 2003 the French heatwave caused the premature death of 14,800 people, according to official figures due to overheating.

2.5 Challenge: Community

The Commissioners spoke about studies undertaken by Government that show the impact that heat-waves have on society and communities, including a rise in mortality and ill-health, and a rise in social disturbance. Historic social unrest in Haringey has occurred in the warmer summer months, in periods of prolonged heat.

The 2008 'Better Haringey Survey' showed that 80% of respondents said that climate change posed a problem, with 54% saying it was a big problem. This was not just internationally, where people felt that London had a leadership role to play, but also in the local Haringey communities.

2.6 Measures

The Commission have suggested below a number of short, medium, and long term recommendations that the Council should consider.

It is recommended that the enacting of these recommendations should be measured through:

- Comparing statistics on the amount of green and open space in the borough over time;

- Collating user views on the value of green spaces in the borough;
- Measuring the number of developments undertaking thermal modelling for future climates;
- Measuring the number of SUDs in the borough.

2.7 Principal Aims

The Commissioners highlighted that with an increase in new buildings and hard standing, it is likely to increase risks around the urban heat island effect, and place increased demand upon green space in the borough. They recognised the cost of delivering green infrastructure, but there was overall agreement that the long-term need to reduce the need for cooling, alongside other benefits (outdoor space, biodiversity, mental health, surface water management, etc) were significant and that a visually "green" development delivers a higher return.

These new green spaces should not be limited to ground level only, and that they can be integrated into the design of new buildings. The commissioners highlighted schemes that had minor interventions (see appendices for the greening measures being retrofitted at Queen Caroline Estate in Hammersmith and Fulham) through to major green infrastructure designs into the buildings (Bosco Verticale, Milan for building integrated green infrastructure). They also sign-posted green infrastructure projects with multiple purposes (Victoria Park Green Bridge, Mile End). The Commissioners stressed that this infrastructure improves the local environment, changes perceptions, and delivers a return to developers.

To manage surface water flood risk it was highlighted that all parts of the borough can and should deliver localised water retention and storage, and that the borough had started to deliver this already. The 'Love the Lea' campaign has already opened rainwater gardens at Boyton Road to reduce surface water run-off. It has been delivered with the local community, to raise awareness and improve the local environment. The Commissioners highlighted that this campaign offered multiple positive outcomes for the borough.

To address the over-heating risk in new built environment, the Commissioners discussed building on the positive work that Haringey has done in delivering climate change resilience. The design of new buildings must integrally mitigate the effects of overheating through consideration of orientation, amount of glazing, the incorporation of thermal mass, and natural ventilation. Narrow plan forms are essential to assist cross-ventilation. Air conditioning in offices must be

minimised, with new typologies and forms employed to replace outdated building typologies that can only function with the use of expensive, energy-intensive systems. Planning policies to deliver this are in place and should be given greater priority.

The Commissioners referenced a number of times "GreenClimateAdapt" (Appendix A) which incorporates solutions that deal with many of the potential issues and challenges cities will be faced with over the course of the coming years in terms of climate change adaptability. It is a Green Infrastructure initiative in Malmo, Sweden where a number of innovative environmental management tools were tested to show how urban areas can adapt to climate change.

2.8

Actions & Milestones to address a Changing Climate and Deliver Resilience

Short Term

1. Design buildings that accommodate a more Mediterranean type environment for summer months and can cope with wetter winters. Encourage property developers to look at old architectural methods (Chinese and Arabic) that incorporate shading, courtyards, use of green spaces, etc.
2. Update planning policy so property developers assess the thermal density of materials that can cope with cool and warm weather conditions to adapt to future climate change.
3. Produce a Haringey strategy for 'living buildings', including integrated green walls for façades, green roofs, and green spaces within the public congregational areas of buildings.
4. Set a fixed % of green space area, including wildlife, flora and fauna, biodiversity and eco-systems, related to GIA, that all new developments must meet.
5. Set a borough-wide target for increased tree planting
6. Produce a 'Green Infrastructure Plan' for the borough that reflects the ambition of the 'All London Green Grid' (London Plan) in creating a designed network of green infrastructure across the borough to provide flood protection, shade, biodiversity, space for cycling, walking and recreation, with benefits also for building resilience.

7. Ensure that public and community buildings are designed to remain cool in heatwaves, and can act as a refuge in these times.

Medium term

1. Develop a policy and strategy for reducing the number of mechanically ventilated buildings in the borough, promoting natural ventilation and hybrid ventilation.
2. Establish a 'Haringey Climate Change Adaptation Fund' that requires developers to not just address climate change adaptation within their developments but also to contribute to climate change adaptation projects across the borough.

Long term

1. Expand the Durham University partnership to include for research into climate resilience and adaptation innovation which could be trialled in the borough.
2. Integrate the Haringey 'Living Buildings' strategy into planning guidance.
3. Set borough-wide targets for bio diversity, water management and micro climate improvement through tree planting. To be incorporated into planning policy.

Recommendation 3

Deliver a Zero Carbon & Net Energy Positive Haringey by 2050

The challenge of carbon reduction is well known, and local authorities have an absolutely crucial role to play. Haringey has taken steps to deliver clear carbon reduction targets, pursue strategic projects and demonstrate improvement. This work was highlighted by the Commissioners as strong leadership, and a positive programme that others should follow.

H A R I N G E Y



3.1 The Challenge

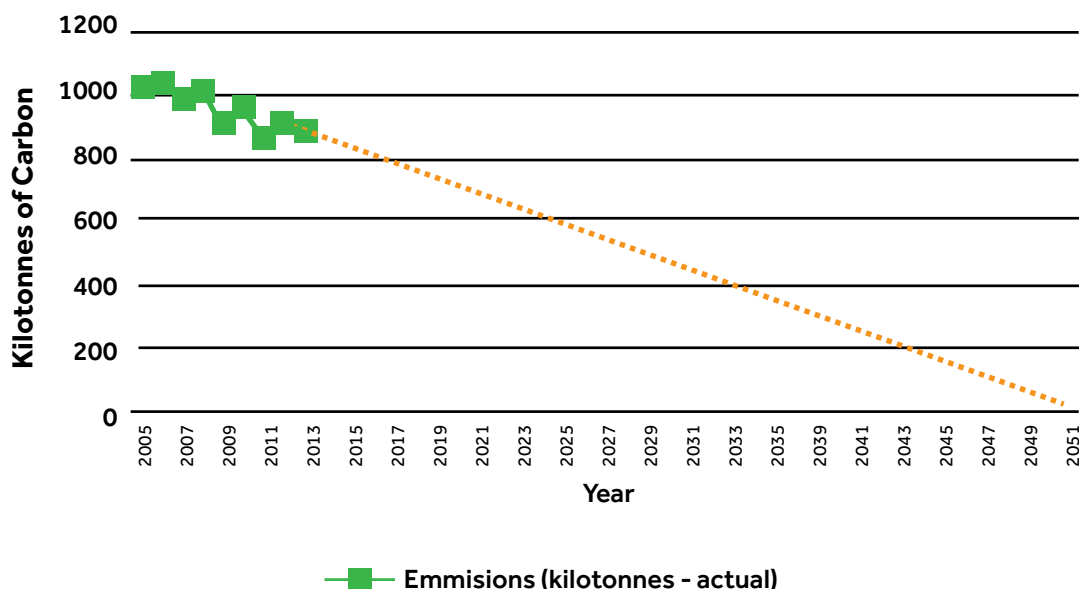
Action is needed to address rising energy costs and manage supply and security against the threat of climate change. The Government and the Mayor of London are seeking to change the UK's ageing energy infrastructure and improve energy efficiency. Haringey

has a leading role to play in supporting these ambitions. Haringey was the first local authority in the UK to sign the Friends of the Earth pledge to reduce borough-wide emissions by 40% by 2020. The Commission recognised that the costs of climate change will impact on the poorest the hardest, and that the required changes can have strong economic benefits: alleviating the core social and economic challenges in Haringey and delivering a route to greater prosperity and opportunity for all.

The 2012 Carbon Commission identified practical steps that can be taken – using existing resources, technology, and policy – to deliver a cut of 40 per cent in carbon emissions by 2020. Improvements in transport, housing, energy and financial innovation have all helped the local economy, improved the lives of local people, and protected against high and volatile energy prices, while reducing carbon.

Since the Carbon Commission Haringey's carbon emissions have fallen by 37% (since 2005) and are well on the way to achieving the target of a 40% reduction. Although Haringey's carbon emissions are falling at a faster rate than London as a whole, they are not falling as fast as the national level. It is also noted that emissions have not fallen year on year: in some years the borough's emissions have demonstrated an increase. This has been put down to a local economic upturn. But the borough's emissions per capita, that measure carbon emissions based on the average emissions per person, have dropped. Since 2005 Haringey's population has increased by 14.8%, while carbon emissions have fallen by 24% from 4.5 kilotonnes to 3.4 kilotonnes per person. This demonstrates that carbon emissions are falling at a significant rate, faster than population growth.

Carbon Emissions since 2005 and the Route to Zero by 2050



Between 2005 and 2013, carbon emissions in each of the Transportation, Housing, and Commercial sectors have fallen. The reduction in transport emissions has had the largest impact since 2005, falling by 16.4%. The Housing sector has decreased at a similar rate to transport, but still accounts for the majority of the borough's emissions (approx. 52%). Business emissions have generally decreased at a slower rate, but have benefitted from a large reduction in emissions (5.9%) between 2012 and 2013.

The challenge of becoming a zero carbon borough by 2050 is a big one. A zero carbon borough is defined as an area with zero net energy consumption. This means that the amount of energy used by the area on an annual basis is equal to the amount of energy generated by renewable energy sources. Haringey may at times consume non-renewable energy, that produces greenhouse gases, but at other times will over-produce renewable energy and therefore offset the greenhouse gas emissions.

To deliver this ambition Haringey will need to reduce energy consumption across the borough, and increase the energy generated in the borough from renewable technologies. While the 2050 target may seem a long way off, projects and policies agreed now will take time to implement and gain traction/have impact.

3.2 Measures

The Commission have suggested below a number of short, medium, and long term recommendations that the Council should consider.

It is recommended that the enacting of these recommendations should be measured through:

- Tracking the number of zero carbon developments in the borough (including via the HDV);
- Measuring the amount of energy consumed in Council buildings;
- Measuring the reduction in CO2 levels across the borough;
- Measuring the amount of renewable energy generated in the borough.

3.3 Principal Aims

The first recommendation from the Commission was to collect and promote more information on energy consumption across the borough. For actions to be measured and impact proven the Commissioners recommend that real time data is collected wherever possible and communicated. The Council can lead through its own buildings, but should also work with developers to measure building performance and advertise energy efficiency and on-site energy generation.

Improved energy efficiency standards in new and existing buildings will reduce carbon emissions and energy costs from heating and electricity. It is essential for growth to address increasing energy costs, particularly in poor quality buildings. The Council can demonstrate leadership through improving energy efficiency in its social housing and corporate buildings. The Council can also play an influencing role, such as lobbying to secure a fair deal for energy efficiency funding. A Department of Energy and Climate Change (DECC) (2014) public poll showed that 73% of people felt that civic leaders must tackle climate change and emissions from energy generation.

Efficient use of energy contributes positively to economic growth, through reducing operating costs for businesses. Energy management can help create new economic opportunities and energy generation will support the development of smart grids. The growth of the retro-fitting sector offers job creation opportunities. Efficient development alongside non-polluting energy is needed to meet Government targets and for the growth of Haringey.

The Council should embrace and enforce planning policy targeted at energy efficiency and renewable generation. The Commissioners referenced the work completed at the Millennium Village in Greenwich, despite being over a decade old it is still considered a leader and exemplar development in reducing carbon and saving energy (refer to Appendix A for more detail).

Electricity infrastructure must become more efficient, alongside local generation. Local energy and heat networks can contribute to capacity and these, alongside new emerging technologies, such as energy storage, and the development of smart grids, will support the borough in managing its future demand for power. Heat networks and energy storage should be investigated and where appropriate integrated into the regeneration areas and developer plans.

Haringey's carbon emissions mainly come from the built environment. The majority of this energy demand and associated carbon emissions comes from domestic dwellings (approx. 50%) and commercial uses (approx. 32%).

The Commissioners highlighted that through enforcing existing planning policy and expanding retrofit projects the borough can significantly reduce its carbon emissions, and that close cooperation with business and homeowners was needed. The recommendations on engagement and funding support should be considered.

The Commission advised that the Council should develop a mechanism to address this unmeasured carbon and in closing recommended the following actions:

- The Council should build a "Carbon Map" for the borough. This would include embedded and indirect carbon emissions;
- The Council should deliver business plans to bring forward carbon reduction in the borough, addressing the key aspects identified in the "Carbon Map." This should link to the existing political ambition of the borough and align with the Council's Corporate Plan;
- The Council should set out a strong narrative to deliver the message and gather community engagement through a Communications Plan: "Haringey's Zero Carbon Future: A manifesto for a clean, smart and healthy borough."
- The Council should work towards the delivery of a Haringey exemplar project within the borough to act as a beacon for others to follow and the community to engage with.

3.4

Actions & Milestones to deliver carbon reduction

Short Term

1. The Council should set out a route map to be being zero carbon by 2050. This needs to be hard-wired into planning and legal contractual agreements for borough wide regeneration joint ventures, i.e. the HDV.
2. The Council should identify a site and work with its selected development partners to deliver an exemplar zero carbon development. This should be zero carbon in operation and construction, and deliver a step change in embodied carbon.

3. Produce a map of energy storage opportunities in the borough. This will act to reduce energy wastage in the medium term and improve the deployment potential of stochastic renewables.
4. A review of the Council's own assets (office buildings, schools, libraries, museums, etc) and put in place an action plan to reduce Council run assets emissions and achieve zero net carbon emission buildings by 2025, i.e. leading by example.
5. Set targets for new development to not just reduce CO₂ emissions but to actually sequester CO₂ through materials and technologies used.
6. Maximise community owned renewable installations through establishing a community renewable energy fund.

Medium Term

1. The Council to work with private building owners to draw up plans for achieving at least 40% cuts in net energy usage by 2025, and achieving carbon neutrality by 2050. This could focus initially on big users, e.g. supermarkets, industrial and commercial estates, housing associations, utilities, etc.
2. Require the installation of energy displays in all new build and retrofit residential, commercial and mixed-use properties, encouraging residents to observe and control their own energy usage and highlight the savings achievable.
3. Require developers of new properties to actively engage with new and evolving façade treatments, such as solar integrated façades.
4. Maximise community-owned renewable installations through a community renewable energy fund/company.

Long term

1. Enforce Air Quality Neutral standards across the borough for new developments.
2. Create a policy to deliver carbon positive developments.
3. Deliver large scale renewable technologies in the borough to act as a beacon for action and increase local energy generation.

Recommendation 4

With the North London Waste Authority reduce waste to landfill to zero and increase recycling rates

Waste affects all of us and with an ever growing population our waste production increases with it. As a society we need to care about how products are made and how to deal with them once they are of no use anymore. If not, with increasing land-fill costs we will not only increase our overheads but we will also have a much larger negative impact on our environment.

The UK generated 200 million tonnes of total waste in 2012. Half of this was generated by construction. Commercial & Industrial activities generated almost

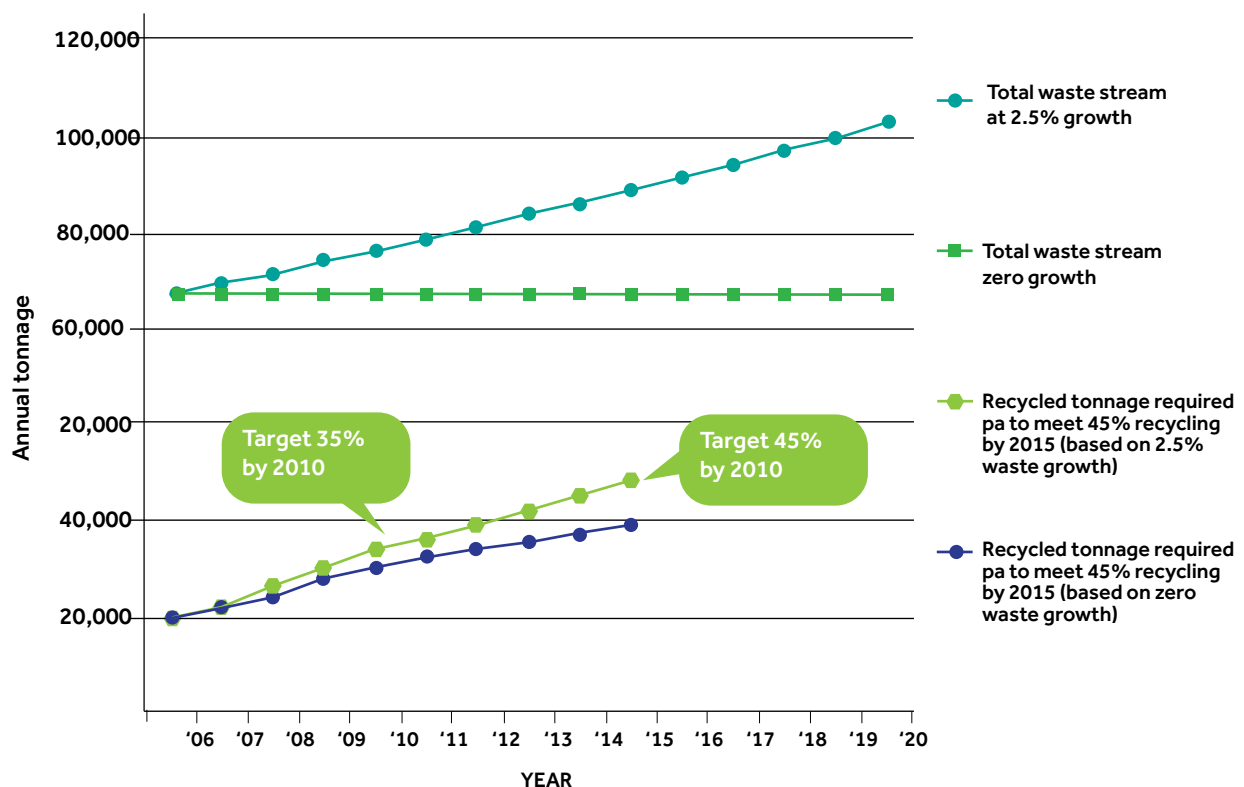
a quarter, with households responsible for 14%. In Haringey nearly 85,000 tonnes of household waste are produced each year, equivalent to nearly a tonne of waste per household.

4.1 The Challenge

The amount of waste produced in North London has been climbing steadily at an annual rate of 2.5% over recent years. There are tough recycling targets in place for Local Authorities to ensure that as more waste is produced, there is an increased emphasis on recycling. With no attempt to combat this problem by 2020 an extra 36,000 tonnes of waste will be produced each year. This is equivalent to a 40% growth in waste between 2006 and 2020.



Waste and Recycling Growth till 2020



In order to ensure waste and recycling targets are met and that Haringey can be seen as an exemplar across London, the Commission identified that communication and engagement with different communities was a key requirement to deliver waste reduction targets.

The graph above illustrates the forecast increase in waste to 2020, and shows the amount of recyclables that will need to be captured to meet recycling targets as set by Government, and as agreed with the North London Waste Authority (NLWA).

4.2 Measures

The Commission have suggested below a number of short, medium, and long term recommendations that the Council should consider.

It is recommended that the enacting of these recommendations should be measured through:

- Measuring the reduction of waste exported from the borough;
- Measuring the reduction in waste going to landfill;
- Charting increased employment opportunities and job creation in the circular economy.

4.3 Principal Aims

Haringey Council's vision is to improve the quality of life for everyone in the borough – putting people first, being bold in dealing with issues for the benefit of all. The Council's aim is for no waste to be sent to landfill, thus ensuring that waste is transformed into usable useful materials or energy. Last year, more than 86% of waste materials were either recycled or turned into energy in Haringey.

The Council operates a number of waste sites providing a safe and secure alternative to landfill. They also operate Reuse and Recycling Centres (RRCs) for household materials. These regulated facilities are integral to London's resource-economy; recovering energy from waste - enough to power more than 70,000 homes throughout the year - and providing reuse and recycling services.





Food waste is a topic that rightly receives a great deal of attention, with food waste accounting for over 20% of the UK's GHG emissions. Also, in today's economic climate the focus has moved to the hospitality and food retail markets where organisations donate less than 10% of perfectly edible and in-date food to the homeless and charities. The Commission referenced a scheme in Lisbon where a charity works with retailers to redistribute in-date food that would otherwise become waste (refer to Appendix A). In London the Felix Byam Shaw Foundation is working with retailers to redistribute waste food to charities and the homeless.

Reducing, reusing and recycling waste is the best solution for dealing with waste financially and environmentally. Currently 38% of all waste collected in Haringey is recycled, with the North London Waste Authority (NLWA) having set a target of 50% by 2020, and the London Plan working towards 0% by 2030. Although Haringey is well on its way to achieving this target there is still a large opportunity to substantially increase the reuse and recycling rates.

4.4 Actions & Milestones to improve Waste & Recycling

Short Term

1. Set clear policy and targets that ensure Haringey reduces landfill to 0% by 2030.
2. Empower local waste & recycling Champions within the community, to increase awareness in their own areas and encourage others to change behaviour.
3. Develop a Further Education waste & recycling qualification, in partnership with local colleges and waste businesses.

4. Conduct a feasibility study into the potential for integrating micro-scale waste to energy solutions into new developments. Considering primarily anaerobic digestion or pyrolysis of non-recyclable waste.
5. Commission a study to establish what is the difference in uptake of recycling between different socio-economic areas in the borough, and what can be done to improve recycling rates across these areas.

Medium Term

1. Create recycling stations for old furniture (restoration and repair) to provide inexpensive recycled products to residents.
2. Work with supermarkets to redistribute food that would have gone to waste to local shelters, disadvantaged households, and charities.
3. Set policy and targets around waste from demolition and construction on development sites.

Long term

1. Create a cluster of recycling industries alongside the North London Eco Park.

Recommendation 5

Drive the uptake of clean technology across Haringey's built environment targeting new development

The growth in the clean tech sector has been prodigious. Wind power has seen an increase of on average 30% pa over the last 5 years, and solar PV 60% over the same period (Bloomberg.) According to the IEA renewables accounted for 18% of global energy consumption in 2010 and this is expected to grow to 60% by 2035.

The growth of clean technology has transformed many sectors from vehicles to lighting to construction materials. It is essential that Haringey embraces this seismic industrial shift and positions itself to benefit

to the maximum extent from the economic and CO₂ reduction benefits that are becoming increasingly manifest.

5.1 The Challenge

The challenge for Haringey is how to drive the uptake of clean technology within the borough within a fiscally constrained environment and within a context of rapid regeneration and urban development, which will lean towards proven technological solutions that can be delivered cheaply and quickly.

This is an area in which Haringey needs to be bold, and to build upon the ground-breaking work already commenced with the University of Durham and with the Innovation Hub.



The clean technology revolution is creating thousands of new jobs in London and hundreds of new businesses that require office and light industrial space though incubator hubs. Haringey can benefit from this employment growth whilst at the same time helping to develop the technologies of the future that will assist with meeting the borough's zero carbon ambition.

5.2 Measures

The Commission have suggested below a number of short, medium, and long term recommendations that the Council should consider. It is recommended that the enacting of these recommendations should be measured through:

- Charting the inclusion of clean technology in refurbishments and new build;
- Measuring the reduction in energy consumption and CO₂ levels;
- Charting the increase in jobs in the Clean Tech sector in Haringey;
- Charting the increase in start-ups in the Clean Tech sector in Haringey.

5.3 Principal Aims

By 2030 demand for water and energy in Haringey is estimated to have increased by approximately 50%. With Haringey setting a target CO₂ reduction of 40% by 2020 the need for clean technology cannot be ignored.

Clean technology, and in particular renewables, help reduce the cost of energy and reduce CO₂ emissions. A good example that has worked well is the Milton Keynes Offset Fund, where developers pay into a fund if their developments do not deliver agreed CO₂ reduction targets. (Further details can be found in Appendix A).

Under Haringey's 'Going Green' strategy the aim is to develop sustainable and renewable energy sources as part of a physical regeneration programme. The Council has already analysed the capacity and potential for promoting decentralised energy infrastructure and renewable energy in Haringey, and continues to promote this.



5.4

Actions & Milestones to increase the use of Clean Technology

Short Term

1. All major developers in the borough should be required to join the Haringey Innovation Hub.
2. Develop a strategy to encourage energy storage technology within new developments. Consider energy sharing across red line site boundaries.
3. Set strategy and goals to ensure developers integrate clean tech into developments.
4. Assess the feasibility of developers and/or the development vehicle contributing to a fund for trialling new technologies in some of Haringey's new developments.
5. Develop a Haringey "Smart City Smart Borough" strategy: a guide to how digital technology can help make Haringey an even better place in which to live, work and invest.

Medium Term

1. Extend the short-term clean tech trialling in new developments to commercial-scale demonstrators.
2. Target a number of Haringey supported clean tech start-ups that have been able to test their products and grow by being given opportunities in new developments. Target start-up number to be agreed.
3. Haringey to develop a support centre to encourage the use of clean technology and to provide advice and assurance on tried and tested technologies that can be used to lower bills and be greener.

Long term

1. Develop a 'clean tech cluster' in Haringey where businesses can co-locate in a synergistic environment.

Recommendation 6

Ensure that low and zero carbon buildings are delivered

Sustainable buildings are designed and constructed to high environmental standards. They minimise energy use, reduce water consumption, use materials which are of low environmental impact, reduce wastage, conserve/enhance the natural environment and safeguard human health and well-being.

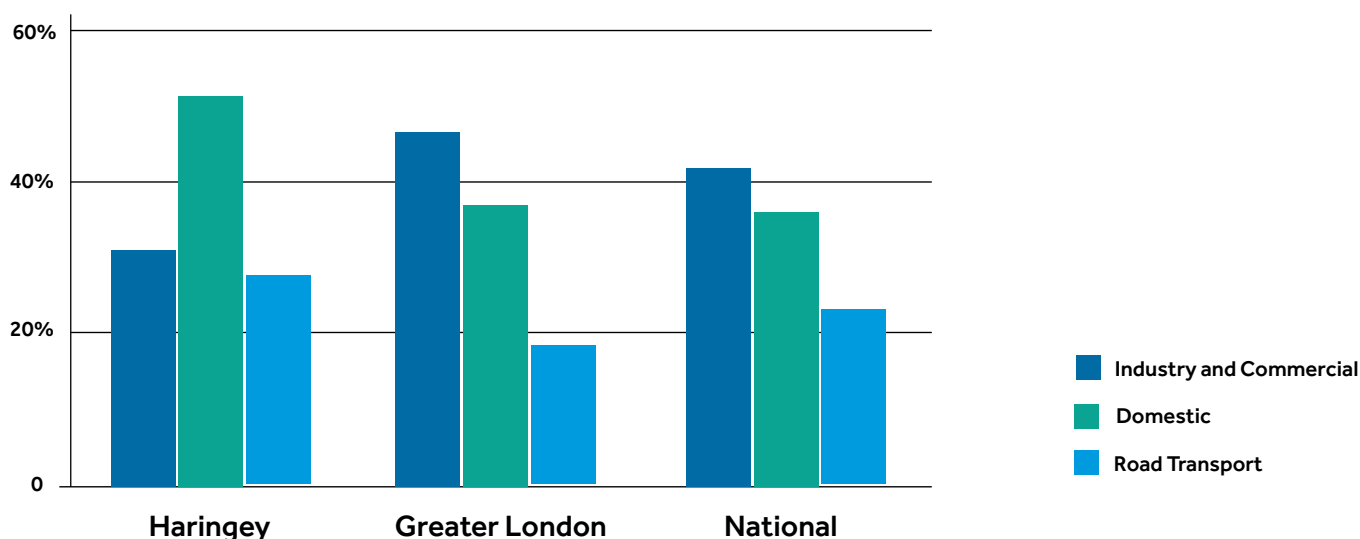
Across the globe, the built environment accounts for 40-50% of natural resource use, 20% of water use, 30-40% of energy use and around a third of CO₂ emissions. The new buildings being designed now are an opportunity to make sure that the built environment makes a positive contribution to the environment, economy and our quality of life.

The refurbishment of our buildings is one of the greatest challenges we face in reducing carbon emissions. The majority of the UK's existing stock requires some level of retrofit to enable us to live and work more sustainably. The UK's housing stock is amongst the least energy efficient in Europe, and is responsible for nearly a quarter of our annual carbon emissions.

6.1 The Challenge

The Standard Assessment Protocol (SAP) is a Government rating system to measure the energy efficiency of housing, where 100 is excellent. On average all existing domestic housing in Haringey had a SAP score of 62.3 in 2014 (the last full year for which data is available). This is slightly higher than the national average (which was 61 in 2014) and slightly lower than the average suburban residential sector in the UK which is 62.4. Although no regional data is available, from discussions with neighbouring boroughs we know that the Haringey housing stock is below standard and has scope to improve.

CO₂ in Haringey, London and the UK



The Commissioners highlighted that improving energy efficiency, and the SAP scores, was one of the largest challenges for the borough. They referenced a study by the Technology Strategy Board (TSB) which stated that up to 85% of existing housing in the UK will still be in use by 2050. The UK therefore needs to refurbish 4 homes a minute every working day from now until 2050 in order to reach the 80% carbon reduction target set

by the Government (Chartered Institution of Building Service Engineers - CIBSE).

To improve the energy efficiency of these homes will require measures such as external wall insulation, double or triple glazing, new heating systems, and renewable energy installations. Barriers such as finance and planning will need to be overcome to deliver the required standard.

Alongside existing buildings, the London Plan (2016) requires Haringey to construct at least 1,502 new homes per year till 2025. These new buildings will be around for decades and the Haringey community will be shaped by the standards and design of these new developments. With sustainable design standards being required to be demonstrated through the National Planning Policy Framework (NPPF), the Council can continue to require new developers to deliver local environmental improvement. The Greater Manchester Retrofit Strategy was referenced as a good case study to review with its aim to achieve 55% Carbon Reduction of domestic properties on 1990 figures, details of which can be reviewed in Appendix A.

6.2 Measures

The Commission have suggested below a number of short, medium, and long term recommendations that the Council should consider.

It is recommended that the enacting of these recommendations should be measured through:

- The number of jobs created in the environmental/ retrofit sector;

- The increase in functional and linked green spaces and routes within redevelopments with access to wider cycle and footpath networks;
- Monitoring and demonstrating improvement in EPC ratings of new developments;
- Monitoring and demonstrating improvement in EPC rating of existing buildings;
- Increase in Sustainability Assessments secured through planning.

6.3 Principal Aims

The Council should use data on energy performance of buildings to target the buildings that have the worst environmental performance. The Commissioners highlighted that poorly performing buildings reduced an individual's economic potential due to high spend on energy. In using this data the Council would be able to address a range of local environmental challenges found in Haringey's built environment.



The Commissioners felt that the Council must ensure that it sets a higher standard for its own buildings, both commercial and residential. They highlighted the power of an exemplar development to showcase and share learning, and signal the Council's intention.

The example of a sustainably retro-fitted Alexandra Palace could become an international flagship for others to follow. Through the Council's build programme, including the new Council headquarters and development vehicle, there are opportunities to demonstrate leadership through the design of new buildings.

The Council has the opportunity to develop a leading skills base in this area, by making sure that knowledge is generated, shared, and accumulated over time from the new developments and in partnership with the private sector.

With existing planning policies and strong enforcement of them, the Commissioners believe that the scale and number of new homes and businesses coming to Haringey offers an unprecedented opportunity. This new development can deliver low carbon infrastructure, such as community heating, and an increase in renewable technology deployment. These new homes offer a "once in a lifetime opportunity" for the Council to deliver a dramatic reduction in carbon emissions from housing.

The Built Centre, referenced in Appendix A, was highlighted as an extremely innovative development that could be used as an exemplar of a sustainable building costing 23% more than a normal efficient building however saving 83% on energy and resource costs.

The Commissioners learned about the Council's 'Smart Homes' project, and its impact in delivering comprehensive retrofits for nearly 1,300 homes. The Commissioners advised the Council to build on this local best practice and to fill the gap of a lack of Government policy on sustainable development. The Council would need to secure external funding to realise the level of ambition in the retrofitting agenda, but business models could be constructed that deliver carbon reduction, deliver economic growth, and deliver a return on investment.

6.4

Actions & Milestones for New Build and Retrofitting

Short Term

1. Require all new developments to deliver high levels of energy efficiency, through planning, and if they cannot they are required to offset their emissions into a local fund. To use any offsetting funds collected through the London Plan Policy on energy efficiency in new build to deliver a retrofitting and renewable energy generation programme. Undertake reviews the cost of offsetting to ensure the delivery of meaningful energy projects in the borough.
2. All new builds to demonstrate that they are designed to achieve high sustainable development.
3. Establish a "Zero-Fifty Checklist". An easy to use checklist that assesses whether or not a development is helping or hindering the borough's target to achieve zero net CO₂ emissions by 2050.
4. Build a 'green street' in Haringey, a 'Living Laboratory' with the most efficient and sustainable technologies in the market that can be used as an exemplar for the community and developers. Haringey should set the design standards required for public realm and building design that benefit people's health and well-being, and the Council should work to build climate change resilience into the built environment.

Medium Term

1. Require supply chain carbon foot-printing from new build and refurbishment projects so that the borough can address the challenge of embedded carbon.
2. Create an interactive EPC Map of the Borough for residential and commercial buildings.
3. Require specific % of natural green space within a development. The % could be linked to GIA.

Long Term

1. To work with developers to deliver a major development that is carbon positive (it generates more energy than it uses).

Recommendation 7

Set a clear strategy for connecting communities, work places, and high streets through walking and cycle paths, reducing transport emissions by 20%

The UK's historic preferred mode of transport is the car, due to ease and accessibility. Since 2011 an additional 1.6 million cars have been put on UK roads. In Haringey 55% of the population do not have a car, due primarily to the borough's good public transport links. Data shows that lower income groups make more bus and walking trips, whereas higher income groups make more car, National Rail, Underground, and cycle trips (LTDS, 2014).

Inner London (which includes Haringey) trends in transportation have altered between 2005 and 2014. Public transport use has remained relatively constant over the period, but car driver and passenger mode shares have decreased, by 18 per cent and 3 per cent respectively. Whilst the number of people walking has increased by almost 8 per cent, cycling has seen the biggest increase over the period, up 55 per cent than in 2005 (LTDS, 2014).

7.1 The Challenge

Haringey's deprivation levels and health inequalities can be reduced by improving access to essential services including health, education, employment, social and leisure facilities across the borough.

But local public transport is struggling to cope with the increasing demand from the growing population and the network is in need of expansion. The reason for this congestion is the lack of good links between Haringey's employment and residential areas. As a result of this, congestion has increased and air quality is poor, due to the high levels of standing traffic, which in turn deters the public from walking or cycling. Curitiba in Brazil (Appendix A – Case Study) was used as good example where a city had used master-planning to design how the city would handle the challenges of sustainability in a modern congested city. The city integrated a 'radical linear-branching pattern' to protect density by diverting traffic from the centre and protecting green areas by encouraging industrial development along radical axes.

7.2 Measures

The Commission have suggested below a number of short, medium, and long term recommendations that the Council should consider.

It is recommended that the enacting of these recommendations should be measured through:

- Measuring the reduction in Air Pollution (NOX, PM 10, PM 2.5);
- Measuring the reduction in fossil fuel based transport;
- Charting the increase in car clubs;
- Measuring the reduction in traffic;
- Measuring the increase in pedestrianized links between communities.



7.3

Principal Aims

Haringey's 2nd Local Implementation Plan aims to tackle these issues. It aims to ensure Haringey's transport network can accommodate increases in travel demand by tackling congestion, increasing sustainable transport capacity, encouraging modal shift and reducing the need to travel.

It also intends to facilitate an increase in walking and cycling to improve the health and wellbeing of Haringey's residents, increase transport access and connectivity to and from Haringey's key employment and regeneration areas, including Wood Green town centre, and the growth areas of Haringey Heartlands and Tottenham Hale.

Air quality issues will be tackled and CO₂ emissions reduced from transport through smarter travel measures to reduce car use and encourage the use of low carbon transport alternatives. This will ensure the transport sector makes the necessary contribution to achieving a 40% carbon reduction by 2020 and a 60% reduction by 2025.

The plan aims to ensure that transport protects and enhances Haringey's natural and historic environment, including biodiversity, landscape, townscape, cultural heritage, water resources and land to minimise the effects of unpredictable events arising from climate change on the transport network. The "Road Diet Scheme" (Appendix A – Case Study) has been used in New York (and now being considered for Oxford Street by 2020) to great effect to reduce air pollution, increase social interaction and community cohesion, and redesigning street usage to reduce polluting vehicles in residential areas.

7.4

Actions & Milestones to improve Transport & Connectivity

Short Term

1. Provide a "transport choices health map", showing residents the low carbon transport options available to them whilst also quantifying the health benefits of those choices.
2. Develop a transport masterplan that maps potential car-free routes through the borough and links to existing cycle and footpath networks. Set up a scheme to close roads and create temporary green open spaces to improve air quality and social interaction.

3. Haringey to deliver safe, well lit routes for cycling and walking linking home with services and work destinations.
4. Provide better "homes for bikes" at schools and nurseries to enable more cycling, improving children's cardio vascular fitness, and improving safe routes to walk or cycle to school.

Medium Term

1. Enact temporary road closures where possible to restrict transport emissions and improve air quality. Such closures could be linked to Council run information sessions communicating sustainable transport choices.
2. Set guidelines on sustainable travel for council employees and contractors. Where vehicle use is necessary increase the number of EV/hybrid vehicles used.
3. Use the Council's procurement power to require that deliveries related to Council contracts in the borough are only performed by low/zero carbon vehicles.
4. Develop a borough car-free network plan.
5. Set up transport and delivery hubs for re distributing deliveries from lorries to bikes where possible reducing traffic and pollution in the most urgent areas close to schools.

Long term

1. Establish a car-free network of streets across the borough that connect to wider existing cycle and footpath networks.
2. Create Low Transport Emission Neighbourhoods in the borough through restricting traffic use and creating more cycle and walking routes.
3. Work with partners to get investment into the re-fuelling network for EV's and hydrogen vehicles in the borough.

Conclusion

The Council has been forward thinking and bold in asking for an external independent challenge and review on its regeneration programme. Haringey's regeneration programme is already a market shaper in London due its scale and location close to the centre of London. And if the Council embeds many of the Commission's recommendations within its work streams, we believe that the regeneration of Haringey will raise the bar of sustainability and wellbeing from which many regenerations schemes will follow.

The seven recommendations in this report cover a wide range of environmental, health and community well-being objectives. These will stretch the Council and its partners, but the Commissioners believe that as demonstrated through the case studies and guidance contained in this report these can be delivered in Haringey. These short, medium and long term actions will deliver a healthier, stronger, safer, and more sustainable borough.

As the next steps the Commission hope that the Council will respond on the following three next steps:

1. The Commissioners want the Council to respond to the actions and demonstrate, where they agree, that they will embed these actions into the Council's regeneration programme and wider work.
2. The Commissioners hope that progress against the recommendations will be reported on annually through the Council's Annual Carbon Report, which already tracks the Council's performance on carbon reduction. Reporting back publicly will demonstrate progress, leadership, and encourage others to report on their positive actions.
3. Finally, we ask that where it can the Council broadens the scope of some of the actions to support the wider range of ambitions set out in this report. For example, the Council could explore using its procurement powers to embed complimentary outcomes on issues such as air quality and carbon reduction.

To help the Council deliver on the recommendations, several of the Commissioners are keen to keep in touch and support the work the borough is working on. And collectively the Commissioners will support Haringey's leadership and progress on this work where they can.

Appendix A

Case Studies and Exemplar Projects

Mental Health & Physical Wellbeing

Well-being of Future
Generations (Wales) Act 2015

The Well-being of Future Generations (Wales) Act recently came into being creating accountability for public bodies' actions and decisions. There are seven well-being goals: prosperity, resilience, health, equality, cohesive-communities, vibrant culture and global responsibility.

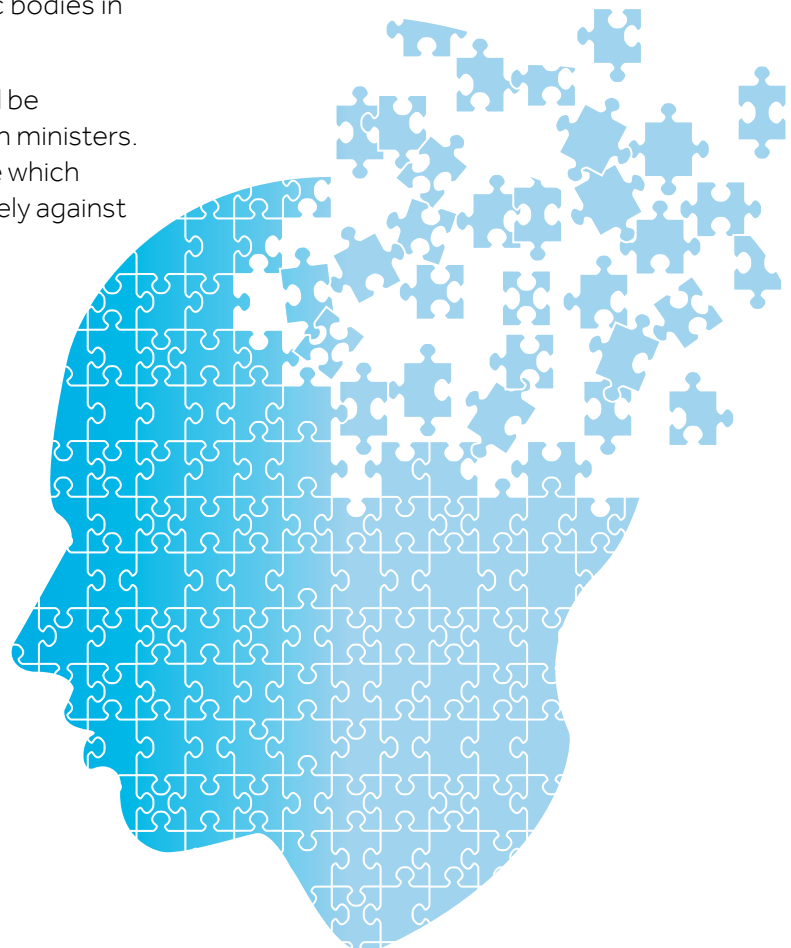
The public bodies must set and publish well-being objectives when undertaking sustainable development, explaining how they intend to meet each of the well-being goals, creating transparency, accountability and responsibility. The act will also create the role of a future generation's commissioner for Wales who will work alongside the public bodies in the Act to achieve the well-being goals.

The achievement of the well-being goals will be measured by national indicators set by Welsh ministers. The indicators must be expressed as a value which can be measured quantitatively or qualitatively against

a particular outcome or milestone. These will be reviewed and revised to stay relevant.

Progress reports will be published at the start of each financial year identifying the progress made over the past year towards the milestones.

<http://gov.wales/topics/people-and-communities/people/future-generations-act/?lang=en>



Climate Change & Resilience

Malmo, Sweden

GreenClimeAdapt is a Green Infrastructure initiative in Malmo Sweden where a number of innovative environmental management tools were tested to show how urban areas can adapt to climate change. These tools include open storm water management, green roofs and green facades. A storm water management system was designed to greatly reduce flood risk with sedimentation and filtration ponds used to clean run-off water before it was re-used. Moreover water management slows water flow in heavy rain, reducing erosion of rivers and streams. Green facades were used to give buildings natural cooling and they can also increase the effect of photovoltaic solar panels.

The benefits for the city are instant and show the local area what can be done to tackle climate challenges. The project needs to be monitored longer term so that the long term benefits can be fully evaluated to ensure the project's investment is viable and can be replicated. However in the short term by incorporating climate change measures, Malmo is more prepared for changing weather conditions in the future.

http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=home.createPage&s_ref=LIFE07%20ENV/S/000908&area=2&yr=2007&n_proj_id=3263&cfd=53147&cftoken=82b8cd267ad49c5c-D6BD3777-DC16-0D58-BC63016EEBAE428D&mode=print&menu=false



The system is being employed in a 45 hectare industrial estate in Malmo. The open storm water design successfully resulted in reduced peak-flows and reduced erosion risk for the Riseberga Creek. It now retains 90% of rainfall of a ten year peak event, whilst additionally providing recreational facilities to residents. The green facades showed they cooled the external surface of buildings by 8 °C, while the internal temperatures were reduced by between 1-1.5°C.

Carbon Reduction & Energy

Greenwich Millennium Village, London (GMVL)

Although over a decade old the Greenwich Millennium Village has proven to be a leader in carbon reductions and energy saving. The pioneering techniques have earned the project an Ecohome 'Excellent' rating. The building materials, waste and recycling systems, water savings and the energy savings in the home have been at the forefront of the development and were designed with the fundamental aim of being as sustainable as possible.



With large scale fabric improvements, additional insulation to metal stud wall constructions, roof and ground floors, high performance aluminium composite and timber windows the properties are far more energy efficient. This is a major factor towards the 44% increase in energy efficiency since 1999. Moreover building design allows maximum natural light combined with low energy lighting along with more natural ventilation.

With phases one and two complete 1,100 homes have been finished, which is more than was originally planned. Phases two and three are ready with

Metropolitan and E.ON having the contract to provide the district heating to the growing development, which will incorporate 1,700 new units being built over an eight year period.



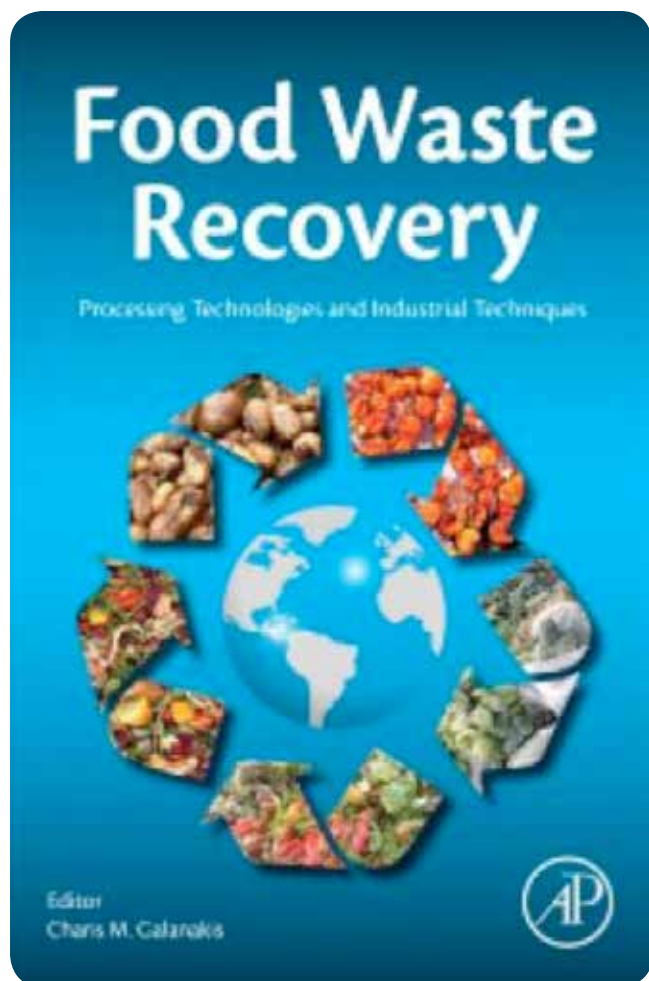
E.ON has a partnership to provide heat via Metropolitan (who are already contracted to provide the electricity, water, sewerage and fibre networks) through a District Heat Network to residents. This will provide price protection over the next 50 years and reduce overall carbon consumption by eliminating the need for gas boilers in every property. The advantage of this is that the system can be powered by waste heat derived from other industries or power generation methods using Combined Heat and Power plants (CHP). Incineration can also be used as the power source utilising the heat energy generated which would otherwise be wasted. This further assists GMVL in achieving their carbon-reduction compliance.

http://www.theade.co.uk/metropolitan-and-eon-deliver-lower-carbon-district-heating-to-a-major-london-development_3123.html

Lisbon aims to become the first zero food waste capital in the world. The vision is to ensure food that would be otherwise thrown as waste reaches the city's disadvantaged. Excess pre-prepared foods and leftovers, that are perfectly adequate for consumption, are collected from various private and public entities such as restaurants and canteens. The movement then distributes the food to various charitable institutions.

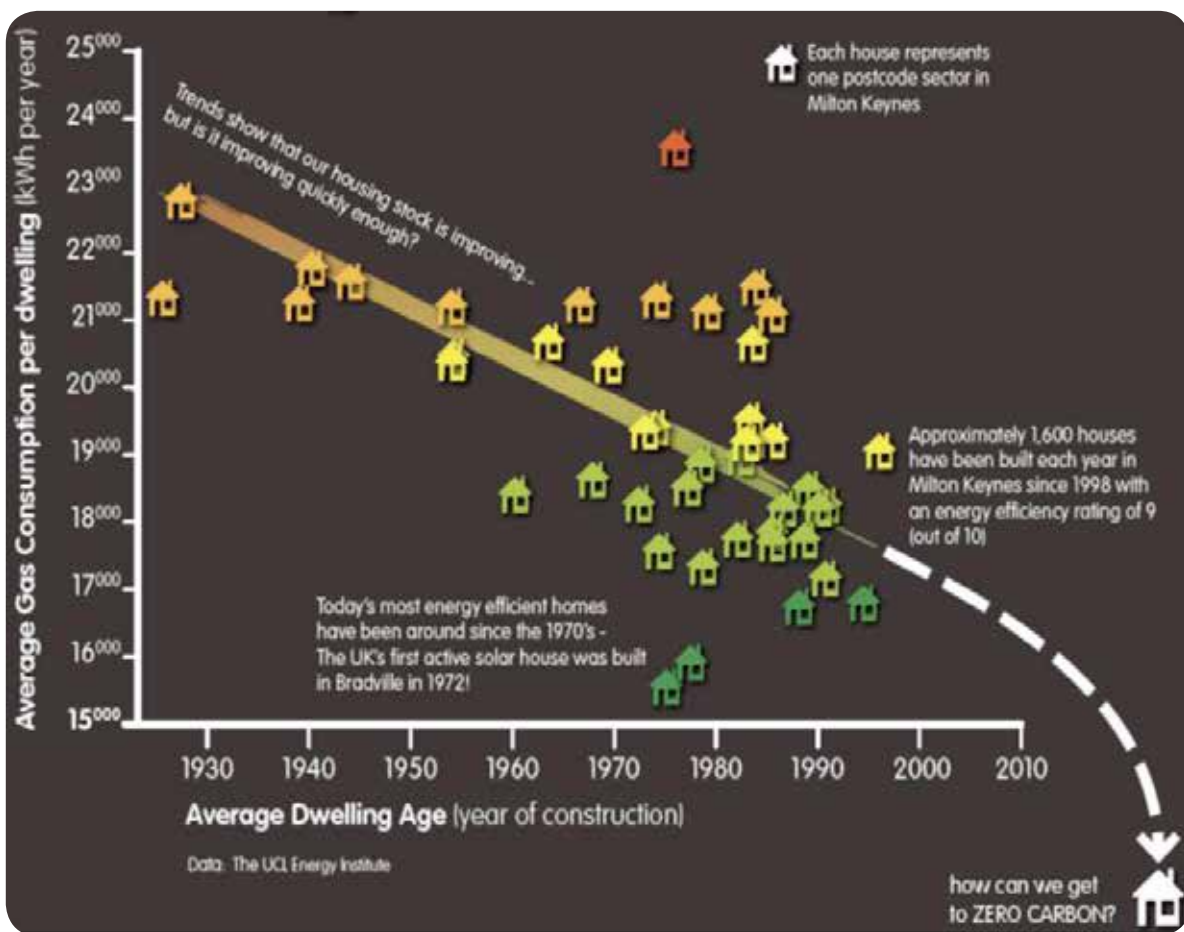
Now the charity has over 100 active donors with around 60 recipient institutions. This provides food for 2,100 families in need which amounts to around 7,300 people. In the last 20 months the movement has saved close to 900,000 meals from going to waste which has come at zero cost for any of the parties involved. Since 2012 1.5 million meals have been distributed, which would have otherwise gone to waste. This is operating in a country where 360,000 people are thought to be going hungry and 50,000 meals a day are wasted nationally.

<http://www.fao.org/save-food/news-and-multimedia/news/news-details/en/c/240679/>



Introduced in 2008, a new home's 'as-designed' energy statement was constructed to predict the level of carbon which will be emitted by the property in the first year of its use. The scheme charges the developer for any additional carbon emissions generated. The tax on an average house is around £400, however as the scheme is carbon neutral the developer will pay £0. This money is then used to fund improvements

to domestic properties in the area to further lower carbon emissions across the city. These improvements have shown the potential to be carried out at a carbon price below £176.50 and have a lifespan of 20 years. According to the council £250,000 has been raised which is enough to insulate 1,000 homes and since 2008 8,000 homes have received free energy efficient light bulbs as a result.



The success of the scheme has been outstanding with clear carbon benefits. But the effect has rippled its way out to the social and economic. An example of this is training days for older residents on energy use with the opportunity to receive £70 in kit to help reduce their energy bills. Now in Milton Keynes there is a 'boiler cashback' scheme where a home with a boiler rated at D or lower is replaced with a new A rated one with the occupiers getting £150 subsidy towards the replacement. This has proven extremely popular with occupiers.

The scheme's overriding success has been largely down to the continuous support of the local authorities. Furthermore the scheme generates its

own funding and can be externally managed; it can be adjusted to different areas' requirements and encourages residents to make changes to the energy consumption of their own households. The fund has shown that carbon should be costed and counted but while doing so can benefit the local residents.

<http://www.nef.org.uk/about-us/insights/milton-keynes-pioneering-carbon-offset-fund-six-years-on>

New Build & Retrofit

Greater Manchester, UK,
Retrofit Strategy

The Greater Manchester Retrofit Strategy is a framework to improve energy efficiency. The overall aim is to deliver a 55% carbon reduction on 1990 levels in the domestic sector by 2022. This will be achieved by retrofitting 1.2 million existing properties in Greater Manchester. By 2020 the scheme aims to have cut domestic carbon emissions by 48%. In the longer term the goal is for 90% of the housing stock to have an EPC rating of B, with the remainder achieving an EPC rating of C by 2035.



By working on such a large scale the strategy should create a sense of social acceptance and pressure to comply. Moreover information will be available to homeowners on what they can do to improve their homes and the strategy targets existing dwellings which are in need of the most improvement.

http://www.retrofit2050.org.uk/sites/default/files/resources/WP1_case_study_report_%20manchester_Region.pdf

This strategy helps contribute to the national carbon reduction commitment whilst confirming the conurbation with 'first mover' economic advantages in the emerging North West and UK retrofit market. Moreover it will regenerate neighbourhoods in the Manchester area making them into attractive area to come and live diminishing the levels of poverty.

The strategy creates jobs through an expanding industry for green housing improvements, feeding back into the local economy and community. Total costs are estimated to be around 12 billion pounds up to 2020 and up to 27 billion over the next decade. The success of the strategy relies on public and private sector landlords and owner-occupiers funding. Three broad categories have been identified: Prudential borrowing and bank debt, community and mutual finance and institutional investment.

Bullitt Center

Seattle, Washington

The Bullitt Center is a product of the vision for urban sustainability. Derived from the Bullitt Foundation the development demonstrates urban sustainability using materials available today.



Designed by the Miller Hull Partnership the property is a six storey state of the art green building with more than 44,700 sq ft of lettable office space costing \$32.5 million to build. The property produces all of its electricity on site via its 14,000 sq ft rooftop photovoltaic panels. Water is conserved through a variety of methods such as rainwater harvesting, a green roof and bioswale to treat graywater and composting toilets. The heating and cooling are geothermal and the building itself is made with council certified products that are free of any toxins. The building encourages green travel as it houses no parking spaces however it has an abundance of bicycle parking with shower and changing facilities.

The Bullitt Center demonstrates that sustainable and efficient buildings are achievable. The Bullitt Centre cost in the region of 23% more than an equivalent Grade A office building, yet it is around 83% more energy efficient. It will also last longer with a 250 year projected lifespan and will have negative net costs as on average it produces 60% more energy annually that it uses. Moreover with continuous research and investment in this area the cost of properties of this spec will only decrease.

The Bullitt Centre proves that carbon neutral office space can be delivered without compromise therefore commercially viable and aesthetically pleasing. Evidence is mounting that investing in greener buildings is proving more worthwhile with premiums on both rents and transactional sales.



With increased construction costs sustainable buildings aren't so appealing for a short period such as five years. However for longer term leases, investments or flagships they can provide plentiful benefits.



<http://www.bullittcenter.org/building/building-features/>

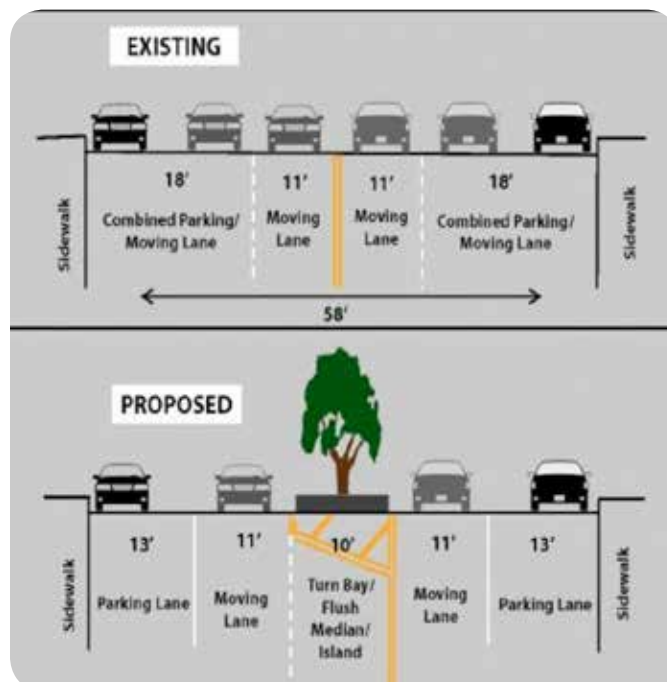
Road Diet schemes have been employed in a number of cities including New York, reconfiguring roads to be more useable and safe for all modes of transport. The New York scheme is run by the Department Of Transport, who design and implement the improvements.

Road Diet schemes typically involve a reduction in lanes with enhanced through lanes, a centre area and more prominent turning areas. Evidence from the USA suggests accident rates are reduced between 19-47% from this. This is due to vehicle's speed being reduced whilst producing a better flow of traffic which increases safety for cyclists and pedestrians. Another benefit of the scheme is that it increases the amount of green open space in urban areas. This promotes cleaner alternative modes of transport such as walking and cycling. For vehicles on the road there are clearer road markings, improved traffic flow therefore reduced commute times. On a wider scale Road Diet schemes improve mobility and quality of life as the streets become more pedestrian friendly and therefore liveable and produce a better overall environmental.

Further advantages of this scheme are that it is relatively low cost compared to the benefits gained as it produces a 'complete street' with an environment that accommodates a variety of transportation.

<http://archpaper.com/2014/01/before-after-24-of-new-york-citys-most-transformative-road-diets/>

http://www.nyc.gov/html/dot/html/pr2008/pr08_022.shtml



Oxford Street

London, UK

By 2020 Oxford Street will be fully pedestrianized over its 1.2 mile route. Cars are already banned from the street between 7am – 7pm everyday apart from Sunday, moreover since 2005 around Christmas the street has had pedestrian only shopping days. Now with over 4 million visitors a week the street will be closed to vehicles permanently. This is also a measure of the mayor of London plan to tackle air pollution.

The change will occur in two stages to ease the process. The first stage will happen to the eastern side between Tottenham Court Road and Oxford Circus, before encompassing the whole 1.2 mile street.

The advantages of this are that pedestrians will be far safer with the constantly increasing footfall, emissions will also be reduced as buses and taxis will no longer be able to operate on the road. With the road being fully opened up to pedestrians business are predicted to benefit as pedestrians will be far less restricted in their movements and will be more free to shop. This transformation is coinciding with the opening of Tottenham Court Road Crossrail station which will further saturate the street.

<http://www.bbc.co.uk/news/uk-england-london-36791485>



Architect and three times Mayor Jaime Lerner made a number of revolutionary changes as part of the Curitiba Master Plan gaining Curitiba global recognition for sustainability and urban planning. Recently the Curitiba Industrial City (CIC) was developed on the west side of the city which has proposed strict environmental regulations in relation to polluting industries. This has produced 200,000 direct and indirect jobs and about 20% of the state's exports now come from this region.



City centre roads have been pedestrianized. Shop owners benefit from increased footfall and the creation of open spaces encourages people to stay and shop in the city centre for longer. Curitiba has more than 50sqm of green space per person, far above the minimum 9sqm the World Health Organisation recommends, achieved through controlling urban sprawl and effectively circling the city with parks and open spaces.

<https://www.theguardian.com/cities/2016/may/06/story-of-cities-37-mayor-jaime-lerner-curitiba-brazil-green-capital-global-icon>



In transport the city has integrated a 'radical linear-branching pattern' to protect density by diverting traffic from the centre and protecting green areas by encouraging industrial development along radical axes. Bus lanes have been favoured over the creation of a subway, saving money and long disruptions from construction; now over 2 million people a day in Curitiba use the Bus Rapid Transit (BRT). The BRT has dedicated lanes making it faster and more efficient than using a car as there is no congestion and less stop time. Around 85% of residents use the system.

Hackney Wick

London, UK

As part of the 2012 Olympic and Paralympic Games preparation and legacy, Hackney Wick has undergone a large physical and social evolution which is planned to continue until at least 2030 with the London Legacy Development Corporation managing the area.

The Local Plan outlined the ideas for re-energising the area whilst maintaining and complementing the existing character. Overall the plan aims to improve the provision of residential, retail, office, workspace and studio/ creative space and provide an improved Hackney Wick Station. By 2030 the development aims to be home to 10,000 new households in five neighbourhoods under the new E20 postcode. A third of the homes will be made affordable whilst each neighbourhood will incorporate play areas, nurseries, schools, health centres, shops and community areas.

Moreover the development will have one of the best transport links into the city including the new Crossrail in 2019.

The plans for Hackney Wick focus not only on improving the offering of the area, but also on maintaining the association with creative industries, media and small businesses. New developments and redevelopments factor in space for start-ups and creative industries as to not force them out. Two of the main priorities set out were: heritage led regeneration and high quality design and creative & productive employment. Therefore there has been a strong focus on maintaining the creative image associated with the area, supporting for small businesses and creative industries and focusing around the station for a community area of independent shops and traders.



<http://queenelizabetholympicpark.co.uk/the-park/homes-and-living/existing-communities/hackney-wick-and-fish-island/hackney-wick-consultation>

Notes



An independent review
and recommendation to
Haringey Council

Haringey
LONDON

Supported by:

 **Knight
Frank**