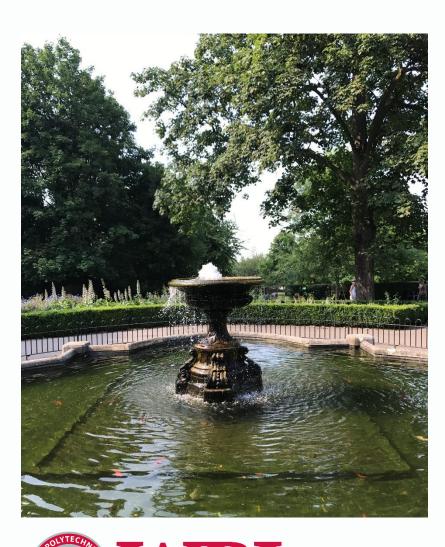
Assessing the One Planet Sutton Sustainability Strategy





Team Members

Omran Alomran Josiah Boucher Casey Hunt Jamison LaRoche

Sponsoring Organisation

London Borough of Sutton

Sponsor Liaisons

Andrea Crump Katrina Lloyd

Advisors

Jennifer deWinter Dominic Golding

June 22, 2017

Abstract

The London Borough of Sutton is striving to become the most sustainable borough in the city. After 8 years of using the One Planet Living sustainability framework, Sutton council staff believe now is the time to evaluate the strengths and weaknesses of this strategy and seek achievable improvements. Case studies of regions around the United Kingdom displaying exemplary efforts of sustainable development allowed us to create a set of recommendations for Sutton's future sustainability strategy including suggested targets, key performance indicators, and benchmarking techniques.

Acknowledgements

We would like to acknowledge several individuals for their contribution to this project, including:

Our sponsors Andrea Crump and Katrina Lloyd from the Sutton Environment and Neighbourhood Committee

All of the staff from the Sutton Council who provided insight through interviews and additional comments, recommendations, and assistance

All of the representatives from Bioregional, Brighton & Hove, Colchester, Islington, and Manchester who graciously took time out of their days for interviews

Our Advisors Jennifer deWinter and Dominic Golding

This report represents the work of WPI undergraduate students submitted to the faculty as evidence of completion of a degree requirement. WPI routinely publishes these reports on its website without editorial or peer review. For more information about the projects program at WPI, please see

http://www.wpi.edu/academics/ugradstudies/project-learning.html



Executive Summary

"If everyone in the world lived as we did in Sutton, we would need almost three planets' worth of resources to maintain our lifestyle (our ecological footprint). This is unsustainable, and expensive. We need to change this and reduce our footprint to a one planet level (Sutton Council, n.d.)."

The London Borough of Sutton is striving to become the most sustainable borough in the city. After 8 years of using the One Planet Living sustainability framework developed by Bioregional, Sutton council staff believe now is the time to evaluate the strengths and weaknesses of this strategy and seek achievable improvements.

Through extensive interviews with 16 employees from Sutton who are in charge of monitoring and reporting on the One Planet Sutton targets, we found that few staff members had issues with the strategy; however, a similar number of staff members found the sustainability strategy irrelevant, as the same jobs have existed for years and the only benefit to the strategy is the organisation of reporting. The interviewed staff members commonly felt that the targets set by Bioregional are too ambitious for the borough to achieve. Conversely, some interviewees felt that these arduous targets drove them to work harder—yet many employees felt disheartened, knowing they

will never achieve the set targets with the current resources available to Sutton.

Case studies of regions around the United Kingdom displaying exemplary efforts of sustainable development allowed us to create a set of recommendations for Sutton's future sustainability strategy including suggested targets, key performance indicators, and benchmarking techniques.

The development of sustainable infrastructure is an essential element of sustainable development; focusing on this often requires significant funding, but brings long lasting, effective results. One solution to the expensive task of developing sustainable infrastructure is to develop policies that requires green procurement and construction practices, which generates revenue for the borough, outsources costs, and ensures sustainable development for the foreseeable future. Education of sustainability ensures a sustainable future; we recommend the borough makes strong efforts to ensure all staff are aware of the sustainability strategy in place.

Community involvement and partnering with external organisations increases productivity and saves resources. We recommend the borough seek new partnerships for sustainability efforts. Separating council-oriented targets from resident-oriented targets allows the council

to act as a leader in sustainable efforts for the residents. Key Performance Indicators and actions effectively measure and achieve targets. Therefore, we recommend the borough adopts broader targets, using KPIs to track progress and performing actions to achieve this progress. Quantifying qualitative target progress subjectively on a scale from 1-10 allows for effective measurement of otherwise unmeasurable targets.

Contents

Abstract	i
Acknowledgements	i
Executive Summary	ii
List of Figures	v
List of Tables	V



Introduction to the Assessment of Sutton's Sustainability Framework

Introduction to the Assessment of Sutton's Sustainability Framework

2

Overview of Sustainability



Overview and Analysis of One Planet Sutton

Governance and Organisational 3
Structure of One Planet Sutton

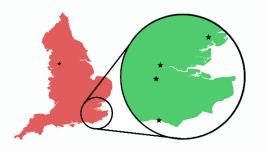
One Planet Sutton Principle 5
Overviews

Summative Needs Assessment for Future Sustainability Framework and Evaluation of Targets



Comparative Framework Assessment

Comparative Framework Assessment	17
Bioregional	18
Brighton and Hove	21
Colchester	23
Manchester	26
Islington	27
United Nations Sustainable Development Goals	29



Recommendations for Sutton's Future Sustainability Strategy Conclusions from Case Studies 31 Suggested Solutions for Identified Gaps Recommended Organistaional Structure and Reporting Methods Recommended Target Progress 37 Tiering System

Authorship, References, and Appendices Authorship 39 References 40 Appendix 1: Council Perspectives 43 Tables 58 Appendix 2: Recommended Targets for Future Sustainability Strategy Appendix 3: Sustainability 67 Distribution Comparison Appendix 4: Interview Questions 68 and Preamble Appendix 5: Government Policy 84 Summarisation Table

List of Figures

Figure 1: Project Goals, Objectives and	1	Figure 19: Key Takeaways from Bioregional	20	List of Tables	
Tasks Flowchart Figure 2: Pillars of Sustainability	2	Figure 20: One Planet Brighton Principles	21	Table 1: Zero Carbon Building Targets with Progress	6
Figure 3: Principles of OPS Framework Categorised by Theme	3	Figure 21: One Planet Brighton Sustainability Distribution	22	Table 2: Sustainable Transport Targets with Progress	7
Figure 4: Sustainability in Sutton Timeline	3	Figure 22: Key Takeways from Brighton & Hove	22	Table 3: Zero Waste Targets with Progress	8
Figure 5: Organisational Hierarchy of	4	Figure 23: Colchester's Deliverables	24	Table 4: Local & Sustainable	9
One Planet Sutton Figure 6: Principles of OPS Framework	5	Figure 24: Colchester's Sustainability Distribution	25	Materials Targets with Progress	
Categorised by Theme Figure 7: Zero Carbon Buildings	6	Figure 25: Key Takeaways from Colchester	25	Table 5: Local & Sustainable Food Targets with	10
Target Progress Figure 8: Sustainable Transport Target	7	Figure 26: Manchester Sustainability Distribution	26	Progress Table 6: Natural Habitats &	11
Progress Figure 9: Zero Waste Target Progress	8	Figure 27: Key Takeaways from Manchester	26	Wildlife Targets with Progress	
Figure 10: Local & Sustainable	9	Figure 28: Islington's Services	27	Table 7: Sustainable Water	12
Materials Target Progress Figure 11: Local & Sustainable Food	10	Figure 29: Islington Organisational Hierarchy	27	Targets with Progress Table 8: Health & Happiness and	13
Target Progress Figure 12: Natural Habitats and	11	Figure 30: Islington Sustainability Distribution	28	Culture and Heritage Targets with Progress	1.4
Wildlife Target Progress Figure 13: Sustainable Water Target	12	Figure 31: Key Takeaways from Islington	28	Table 9: Equity and Local Equality Targets with	14
Progress Figure 14: One Planet Sutton Target	15	Figure 32: UN Sustainable Development Goals	29	Progress Table 10: Key Findings from	32
Progress Comparison Figure 15: One Planet Sutton Progress	16	Figure 33: UN Sustainability Distribution	30	Sustainability Strategy Case Studies	22
of Council Targets vs Borough Targets		Figure 34: Key Takeaways from the UN SDGs	30	Table 11: Key Findings from Sustainability Strategy	33
Figure 16: Map of UK Including Locations of Case Studies	17	Figure 35: Recommended Sustainability Organisational	35	Case Studies	
Figure 17: Bioregional Principles	18	Structure			
Figure 18: Bioregional Sustainability Distribution	19	Figure 36: Recommended Target Tiering System	37		

Introduction to the Assessment of Sutton's Sustainability Framework

The London Borough of Sutton is striving to become the most sustainable borough in the city. Since 2009, Sutton has been using the One Planet Living sustainability framework developed by Bioregional to shape its approach. Sutton Council has achieved many of the targets outlined in the framework, but after eight years, staff believe now is the time to reevaluate the borough's sustainability approach and possibly adopt a revised framework, especially given increasingly limited resources. The council is particularly interested in evaluating alternative frameworks that have been used elsewhere and has identified Brighton & Hove, Colchester, Manchester, and the London Borough of Islington as possible exemplars of best practice.

Given the planet's current global consumption rate of resources, communities across the globe must make strong efforts to become more sustainable. Central, regional, and local government in the United Kingdom have emphasised the need for economic development that promotes environmental sustainability and social justice since the Earth Summit in 1992 (United Nations Conference on Environment and Development, 1992).

The goal of our project is to recommend a sustainability framework or structure to Sutton council which suits their needs, establish metrics for measuring the sustainability strategy, and outlines the key commitments that this sustainability strategy will encompass. In order to attain this, we established four objectives.

Objectives:

- Clarify council perspectives on One Planet Sutton targets and ideas for future strategies.
- Evaluate existing sustainability commitments made by the council (targets, policies and strategies), and identify gaps.
- Identify and review different types of sustainability frameworks, strategies, and action plans, including current and best practices in the use of performance metrics and benchmarking.
- Analyse the previously reviewed sustainability frameworks/action plans and propose a sustainability framework which includes a recommendation for the future sustainability strategy, a list of suggested sustainability targets and/or objectives, and metrics for monitoring the recommended sustainability strategy.

Based on our four objectives, we developed a set of tasks to achieve our objectives and overall goal. These tasks are shown in Figure 1. The background research allowed us to cultivate a thorough understanding of sustainability, available frameworks/organisational structures, and common themes in targets, key performance indicators, and benchmarking techniques. The interviews brought to light the opinions of the staff, stream leads, and other key informants who are affected by the framework and allowed us to analyse the needs of the borough in more depth. The focus group enabled us to tailor our possible recommendations for the sustainability framework using feedback from relevant individuals.

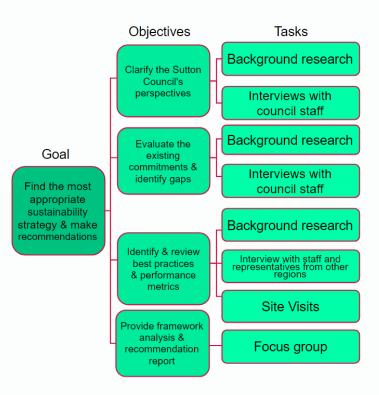


Figure 1: Project Goal, Objectives, and Tasks Flowchart

Overview of Sustainability

Sutton's efforts are part of a major, ongoing effort by numerous countries and organisations around the world. In October of 1987, the World Commission on Environment and Development (also known as the Brundtland commission) produced the Brundtland Report—a document that "helped to shape the international agenda and the international community's attitude towards economic, social and environmental development" (UNECE, 2005).

The Brundtland Report defines sustainability as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

- the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given; and
- the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs."

a document that "... helped to shape the international agenda and the international community's attitude towards economic, social and environmental development" (UNECE, 2005). Sustainability consists of three aspects:
Social Sustainability, Environmental
Sustainability, and Economic Sustainability.
Many national, regional, and local policies
and programs are designed to address the
three types of sustainability, but place
different emphases on each. Often, the focus
is on environmental aspects of sustainability
at the local level in developed nations, but
economic and social sustainability figure
prominently at the national and supranational levels (e.g., at the UN).

The United Kingdom has promoted sustainable development since the adoption of Agenda 21 at the 1992 United Nations Conference on Environment and Development in Rio de Janeiro. The UK Sustainable Development Strategy "recognizes the need for a new, more environmentally sound approach to development, especially with regard to transport, energy production and waste management" (Sustainable Environment Organisation, n.d.).

Policies adopted by the UK are echoed at the regional level, with cities such as Manchester, Brighton, and London adopting their own plans to further work towards a sustainable world; and still further at the local level with boroughs such as Sutton making strong efforts to become leaders in the realm of sustainable development.

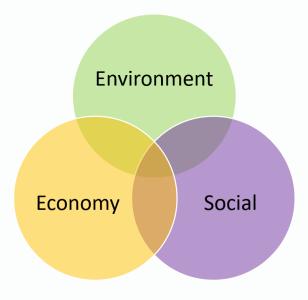


Figure 2: Pillars of Sustainability

Governance and Organisational Structure of One Planet Sutton

The current sustainability framework used by the London Borough of Sutton—One Planet Sutton (OPS), was created from the One Planet Living (OPL) structure outlined by Bioregional. The ideology underlying this framework comes from the fact that "if everyone on earth had the consumption patterns of an average European, we would need three planets to support us" (Bioregional, 2016). Sutton adopted this sustainability strategy in 2009 after four years of reevaluating their previous sustainability strategy called the Eco Management and Audit Scheme (EMAS), which focuses mostly on the management of environmental risk and compliance with environmental legislation. According to a council staff member, the borough continued to use both EMAS and OPL until 2015. where the council decided to withdraw from EMAS. This was due partly to a lack of resource, but mostly because "the council wanted to focus its resources on the delivery of environmental projects and not just management of process" (I13, 25 May 2017). The full timeline of sustainability in the UK and Sutton can be seen in Figure 4.

The OPS framework is organised into five themes, which are further broken down into ten principles (Figure 3). Each principle is composed of several targets which help to identify progress in sustainability. In total, Sutton has 77 targets, with thirty-two of these targets being a priority for the council.

The organisational management hierarchy of a sustainability framework outlines how each target will be monitored and reported. Sutton's organisational hierarchy can be seen in Figure 5. Each target is monitored by a project manager, who oversees and helps execute action plans which help to achieve the targets. Some project managers are in charge of multiple targets. The job of a Stream Lead is to oversee and assist all project managers for a given principle, as well as construct annual reports which are sent to the One Planet Sutton Review Board. Stream Leads are frequently a project manager for one or more targets.

The Stream Leads report to the One Planet Sutton Review Board, who make decisions for changes to the One Planet Sutton strategy. The chair of the OPS Review Board is the Executive Head of Environmental Commissioning, who reports all findings to the Corporate Management Team (CMT). The CMT manages not only Sutton's Environmental, Housing and Regeneration division, but the other three divisions as well. Additionally, the CMT makes decisions on Sutton's environmental policy. The Chief Executive of the CMT reports to the elected members on the Environment & Neighbourhood Committee who make decisions on which environmental strategies Sutton should utilise.



Figure 3: Principles of the OPS Framework Categorised by Theme



Figure 4: Sustainability in Sutton Timeline

All internal organisational management for the One Planet Sutton framework is overseen by the Sustainability Team; this team consists of the Sustainability Manager, the Senior Sustainability Officer, and the Sustainable Economy Officer. The role of the Sustainability Team is to assist project managers with their tasks, assist Stream Leads with their reporting, and generally assist the internal environmental staff when necessary. Members of the Sustainability Team are often project managers as well.

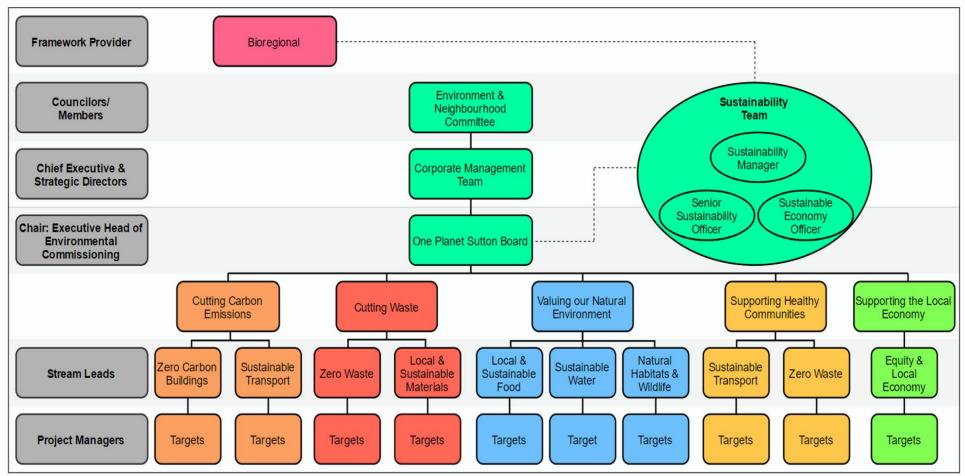


Figure 5: Organisational Hierarchy of One Planet Sutton

One Planet Sutton Principle Overviews

The One Planet Sutton Framework includes five themes, which encompass ten principles, also seen in Figure 6:

- Cutting Carbon Emissions
 - o Zero Carbon Buildings
 - Sustainable Transport
- Cutting Waste
 - Cutting Waste
 - Local and Sustainable Materials
- Valuing Our Natural Environment
 - Local and Sustainable Food
 - Natural Habitats and Wildlife
 - Sustainable Water
- Supporting Healthy Communities
 - o Culture and Heritage
 - Health and Happiness
- Supporting the Local Economy
 - Equity and Local Economy

Each of these themes encompass one to three principals. Principals have varying amounts of targets, which focus around different aspects of sustainability. The success and progress measured from these targets determine how successful Sutton's sustainability framework is operating. Targets are measured in terms of being:

- Target exceeded, met or on track (Green)
- Progress has been made, or has improved since the baseline year (Amber)
- Performance not on target (Red)
- Not Applicable

The way targets are measured does not accurately represent or take into account implications that affect the targets progress. Multiple success and limiting factors impact each target differently. The Council's opinions on the principles and targets along with gathered data express what these factors are. Those factors determine why stream leads—council staff responsible for the delivery of certain targets—effectively or ineffectively accomplish their targets. A



Figure 6: Principles of the OPS Framework Categorised by Theme

comprehensive list of comments and suggestions from OPS project managers can be seen in Appendix 1.

Principles and targets need to be reviewed to determine what principle and targets are currently being successful and are realistic, and which ones are not. The review concludes which principles and targets need to be adjusted or kept the same in an updated sustainability framework.

Zero Carbon Buildings

The Zero Carbon Buildings principle focuses on reducing CO₂ emissions in council buildings and the borough. As shown in Figure 7, the council has achieved two of the three priority targets for this objective but is not on track to achieve the third—a 50% reduction in CO₂ from council buildings by 2017, from a 2010-11 baseline (OPS Annual Report, 2016).

According to Sutton Council staff, this target is unlikely achievable with the given resources. One council officer says the building stock has been a big restriction—the council has made the buildings almost as efficient as possible without spending exorbitant amounts of resources to improve them further. The same council officer noted that this One Planet Sutton target is misleading and not a true representation of the actions taken to reduce carbon emissions.

In 2009, the council had proposed a list of projects which would reduce the carbon emissions across the borough and estimated the carbon reduction per project with the help of sustainability experts. To date, the council has completed nearly 60% of these projects with the initial estimation of carbon reductions to be approximately 30%. The council was aware that the target was unrealistic; however, the actual results of the projects completed has only resulted in a CO₂ savings of 15.9%.

ZERO CARBON BUILDINGS TARGET PROGRESS

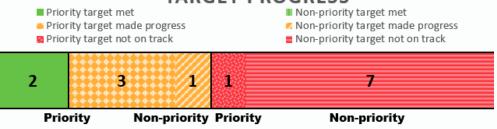


Figure 7: Zero Carbon Buildings Target Progress

Target	Progress
ZCB1 Priority: 50% reduction in CO ₂ from Council buildings by 2017, from a 2010/11 baseline.	•
ZCB2 Priority: 20% reduction in borough CO ₂ emissions by 2017 (from a 2007 baseline).	•
ZCB3 Priority: Annual reduction in scope 1 and 2 CO2e emissions.	•
ZCB4: 20% reduction in CO ₂ from school buildings by 2017 from 2010/11 baseline.	•
ZCB5: Council to sign up to Climate Local to promote low carbon living.	•
ZCB6.1: All new homes to meet Code for Sustainable Homes level 4 from April 2011 onwards.	•

ZCB6.2: All new major residential and non-residential buildings to be Zero Carbon in Hackbridge from 2011 onwards.	•
ZCB6.3: 40% reduction in CO2 emissions for new major residential and major non-residential developments (compared to Building Regulations 2010).	•
ZCB6.4: New residential developments to meet zero carbon standards from 2016 onwards.	•
ZCB6.5: Major non-residential developments to achieve a BREEAM rating of 'Outstanding' from 2017 onwards.	•
ZCB7: To produce and adopt a strategy on fuel poverty to ensure that carbon emissions from vulnerable resident's homes are reduced and their quality of life improved.	•

Table 1: Zero Carbon Buildings Targets with Progress

Sustainable Transport

The Sustainable Transport objective focuses on the use of sustainable methods of transport by council staff, children traveling to school, the use of public transport, and air quality in the borough. As shown in Figure 8, using data from the OPS progress report 2015-16, the council has made progress towards all of the priority goals for this objective; however, according to Sutton council staff, some of this progress may be difficult to continue. While there has been an increase in the percentage of council staff commuting by sustainable methods of transport, the council would "require radical changes of how the staff commutes" (Interview, May 2017) in order to achieve the 2017 target and future targets. Additionally, the council is struggling to get useful data on the transport habits of residents, making the measurement of walking, cycling, and public transport use difficult (Interview, May 2017).

The air quality of the borough is measured by the NO₂ and PM₁₀ levels as gathered by five monitoring stations across the borough. Monitoring these levels is expensive and takes critical resources away from performing actions that deliver results (Interview, May 2017). Many factors outside of the control of the council contribute to the air quality of the borough, which can make reporting progress on ST priority target 4 difficult. According to Sutton council staff, looking at trends in air

quality over a period of time longer than year-to-year provides more accurate patterns; the target should reflect the fact that there are external factors at play, and reporting the reason for a gain in these levels is often expected and necessary.

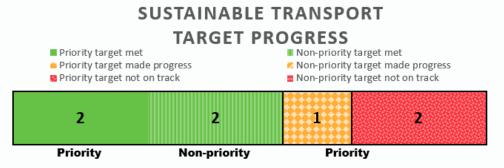


Figure 8: Sustainable Transport Target Progress

Target	Progress
ST1 Priority: Increase the percentage of Council staff commuting by sustainable transport from a baseline of 42% in 2011, to 52.5% in 2017.	•
ST2 Priority: Increase the percentage of children travelling to school by sustainable transport from 76% (2009) to 80% in 2017.	•
ST3 Priority: Increase the use of sustainable transport from a 2009/10 - 2011/12 average baseline of: 1% cycling to 2.2% cycling 28% walking to 29.6% walking 16% public transport to 17.6% public transport by 2017.	•

ST4 Priority: Reduction in NO ₂ annual mean concentrations and exceedances and reduction on PM ₁₀ annual mean concentrations across all monitoring sites.	•
ST5: Reduce CO2 emissions from Council fleet vehicles by 20% by 2017 (from a 2008/09 baseline*)	•

Table 2: Sustainable Transport Targets with Progress

Zero Waste

The Zero Waste principle focuses on recycling, waste reduction, and diverting waste from landfills. The council has encountered difficulties achieving all of the targets for the Zero Waste objective, as shown in Figure 9. According to members of the Sutton Council staff, the difficulties in achieving these targets comes from the misalignment between the rate the work is done and the dates by which these targets must be accomplished; progress towards achieving the targets does not come linearly. Frequently a large project takes a long time to implement, and upon completion significant progress is made immediately; as a result, the reported progress on the targets does not accurately reflect the amount of work put in to achieve these targets.

The council implemented a service change in April of 2017; data pertaining to the effect of this change, however, is not yet available. According to council staff, this service change is estimated to make substantial progress towards achieving the Zero Waste targets. Additionally, "The construction of an Energy Recovery Facility began in July 2015 and is expected to be completed in 2018. The facility will significantly divert waste from landfill, and help Sutton meet its Zero Waste targets" (OPS Progress Report, 2016).

ZERO WASTE TARGET PROGRESS

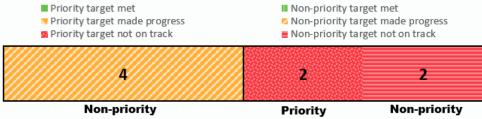


Figure 9: Zero Waste Target Progress

Target	Progress
ZW1 Priority: Reduce waste from council offices by 38% by 2017.	•
ZW2 Priority: 85% of the waste stream in council offices to be recycled or composted by 2017.	•
ZW3 Priority: Reduce waste from households by 5% per household (equivalent to 3,854 tonnes) by 2017.	•
ZW4 Priority: Increase the household recycling rate to 40% by 2017.	•
ZW5 Priority: Achieve the Mayor of London's 2017 Emissions Performance Standard of -0.154 tonnes of CO2 emissions per tonne of waste managed.	•
ZW6 Priority: 4,000 tonnes of Local Authority collected waste sent to landfill by 2017.	•
ZW7: Achieve Carbon Intensity Floor in 2017 of 400kg of carbon dioxide	•

emissions per kWh of energy generated from waste.	
ZW8: Reduce waste from schools by 30% by 2017.	•
ZW9: Increase recycling and composting in schools to 40% by 2017.	•

Table 3: Zero Waste Targets with Progress

Local & Sustainable Materials

The Local and Sustainable Materials (LSM) objective focuses on the promotion of local procurement as well as the procurement of goods which have a low environmental impact. As shown in the One Planet Sutton Progress Report 2015-16, the council has excelled in achieving both of its priority targets for this objective. The targets for LSM revolve heavily around the Sutton Council internally. The LSM priority target 2 is to "achieve an increase in number of items of council office materials reused or recycled from previous year", with office materials being defined as larger equipment such as stationery and office furnishings (OPS Progress Report 2015-16, 2016).

This target was completed with nearly a 100% increase in office materials recycled from the previous year. Similarly, LSM priority target 1 was to achieve an increase in percentage spend with small and medium enterprises (SMEs), while the borough has "one of the highest number of businesses classified as small and medium-sized enterprises in London" (OPS annual report 15-16).

These targets were easily achieved, but little progress was made towards the local and sustainable procurement of materials outside of the Sutton Council.

LOCAL & SUSTAINABLE MATERIALS TARGET PROGRESS



Figure 10: Local & Sustainable Materials Target Progress

Target	Progress
LSM1 Priority: Achieve an increase in % spend by council with SMEs from previous year.	•
LSM2 Priority: Achieve an increase in number of council office materials reused or recycled from previous year.	•
LSM3: Increase resident's awareness of reuse facilities in the borough through the publication of a borough directory of reuse centres by 2017.	•
LSM4: Reuse of own materials: Introduce a resource distribution system (similar in nature to WARPit / Greenforce) by 2017 to reduce council waste and increase reuse of materials.	•

LSM5: By 2017, all new major council led developments should use: 10% recycled content by value, 15% local materials by weight, 95% timber should be FSC certified (or equivalent).	•
LSM6: Achieve level 3 of Sutton's Flexible Framework by 2017.	•
LSM7: Maintain a UK Government approved accredited Environmental Management System across the whole of the council's operations.	•
LSM8: Seek to work with skills and sharing partners to promote options to residents and businesses by 2025.	

Table 4: Local & Sustainable Materials
Targets with Progress

Local & Sustainable Food

The Valuing our Natural Environment theme encompasses three principles: Local and Sustainable Food, Natural Habitats and Wildlife, and Sustainable Water. The Local and Sustainable Food principle revolves around increasing the quality of food being consumed by the residents, increasing community involvement, and providing opportunities for local producers to sell their produce. The Council is on track to achieve the two priority targets they have set (Sutton Council, 2016).

The Sutton Council has been working with members of Sutton's Food Forum, a forum which promotes and develops local and sustainable food. (Sutton Food Forum) According to a member of the Food Forum, the main challenges facing the Sutton's Food Forum members are a lack of funding and lack of volunteers. The Sutton Council previously provided funding for the Forum members to run events; however, as the council has faced budget cuts, they are no longer able to provide the Food Forum with financial aid. Due to the lack of funding, members of the Sutton Food Forum have been forced to cancel or postpone some of their main projects and events. Canceling or postponing events prolongs the process of achieving targets. Cancellations mainly impact targets pertaining to increasing opportunities for local producers as well as increasing community involvement. For example, this year's Family Food Growing

sessions could not
be held for the first
time since 1997, and
school events are
struggling to be
held. According to a
member Food
Forum, Even though
2017 targets have
been met, if funding
and volunteers are
not increased, future
targets are unlikely
to be achieved
(Interviewee 12, 24 May, 2017).

Target	Progress
LSF1 Priority: Enable an increase in people to take part in growing their own food locally by 2017.	•
LSF2 Priority: Increase the number of opportunities for local food producers to sell local produce in Sutton by 2025.	•
LSF3: Achieve a maximum score in the list of London Boroughs showing leadership in food locally by 2017 (London Food Link – Good Food For London).	•
LSF4: 65% of schools signed up to the Food for Life programme by 2017.	•
LSF5: Develop projects and agreements with local businesses to promote sustainable food by 2017.	•
LSF6: Carry out local food mapping to show where organic and sustainable	•

LOCAL & SUSTAINABLE FOOD TARGET PROGRESS

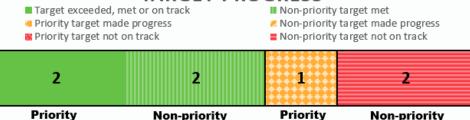


Figure 11: Local & Sustainable Food Target Progress

foods can be purchased in the borough by 2017.	
LSF7: Produce an Allotment Strategy by 2017.	•
LSF8: Develop and adopt minimum buying standards for sustainable healthy food where practical on future catering contracts and monitoring processes for council catering by 2025. Use minimum buying standards where practical on renewal of catering contracts by 2025.	

Table 5: Local & Sustainable Materials
Targets with Progress

Natural Habitats & Wildlife

The Natural Habitats and Wildlife principle focuses on increasing the number of volunteers participating in nature projects, as well as developing and implementing plans to effectively manage and maintain Sutton's nature conservation sites. As shown in Figure 12, the Council is on track to achieve five of its six priority targets and has made progress towards the sixth target (Sutton Council, 2016).

Interviews with Sutton Council staff indicated the main limiting factor for the Natural Habitats and Wildlife principle is funding. The Lottery Fund is the largest source of financial support for projects; however, the Lottery Fund only contributes to the development of new projects. The Lottery Fund does not contribute to maintaining and updating existing projects (I15, 31 May, 2017).

Council staff stated that close monitoring of the Natural Habitats and Wildlife projects is difficult because most projects require at least ten to fifteen years for completion. Furthermore, due to land shortage in the borough, the council is limited in the projects they are able to implement.

Several factors aid in the success of this principle. The One Planet Sutton strategy goes hand in hand with the department's current work. The department's targets will remain the same regardless of the

framework the Sutton council follows. Another factor that drives success is the passion staff express to improve the biodiversity of the local environment, as one of the interviewees said, "personally, it's a hobby I get paid for" (I15, 31 May, 2017).

NATURAL HABITATS & WILDLIFE TARGET PROGRESS Priority target met Priority target made progress Priority target not on track Non-priority target made progress Non-priority target not on track Priority Priority Priority Non-priority

Figure 12: Natural Habitats & Wildlife Target Progress

Target	Progress
NHW1 Priority: By 2017, maintain volunteer numbers participating in nature projects through Sutton Nature Conservation Volunteers from a 2011/12 baseline (baseline equates to 600 volunteer days a year).	•
NHW2 Priority: 3,000 school children attending biodiversity events per year from 2012 onwards (baseline 2,800 school children attending events in 2011/12).	•
NHW3 Priority: Develop and implement management plans for Sutton nature conservation sites (from a baseline of 35 sites with management plans in 2012 to 39 sites in 2017).	•
NHW4 Priority: To implement 3 river improvement projects identified by the Environment Agency as necessary steps to achieve targets set through the water framework directive.	•
NHW5 Priority: Ensure that 90% of new dwellings built each year from	•

2012-13 onwards (including new build, conversions and change of use) are located on previously developed or 'Brownfield' land.	
NHW6 Priority: Create a revised suite of sustainable development policies for inclusion in the council's new local plan for adoption by 2017.	•
NHW7: Enhance the quality of 12 ha chalk grassland habitat and restore or create 2 ha by 2017 (baseline is 51 ha existing chalk grassland habitats in 2012).	•
NHW8: To create 1 Ha new woodland, hedgerows or orchard areas in accordance with tree policies and improve 2 Ha existing woodland areas for biodiversity by 2017.	•
NHW9: Improve Sutton's Housing Estates for Biodiversity from a baseline of 4% of sites in 2012 to 6% of sites including biodiversity features in 2017.	•

Table 6: Natural Habitats & Wildlife Targets with Progress

Sustainable Water

The Sustainable Water principle focuses on reducing the risk of local flooding and increasing water savings. As shown in Figure 13, the council is on track to achieve both of their current priority targets; however, the council is struggling to achieve the three non-priority targets.

A Sutton Council staff member stated that regardless of the framework the council is following, the same work would be done. The council is required to pursue numerous alternative policies pertaining to flooding and other targets. Government policies are constantly changing; flooding policies in particular may be updated or revoked. Some of the original OPS targets are now outdated and need to be reviewed and updated. A Sutton Council staff member stated that in a future sustainability strategy, it would be ideal to have the ability to continuously change targets to account for possible implications as they arise (Interviewee 2, 16 May 2017).

SUSTAINABLE WATER TARGET PROGRESS Priority target met Priority target made progress Priority target not on track Non-priority target made progress Non-priority target not on track Non-priority target not on track Non-priority target not on track Non-priority target not on track

Figure 13: Sustainable Water Target Progress

Target	Progress
SW1 Priority: Flood alleviation schemes implemented for 3 critical drainage areas by 2017.	•
SW2 Priority: Achieve a year on year saving in council water usage.	•
SW3: By 2017 identify all areas at risk of local flooding. Begin to implement flood resilience measures, and document number of homes with reduced risk of flooding.	•
SW4: Assist 6,000 households in reusing and reducing their water usage by 2017. 47% of homes have water meters fitted.	•
SW5: Maximum loss of water 24ML by 2017; achieved through consistent repair and maintenance of water supply infrastructure.	•

SW6: From 2017, all new homes in the borough are resilient to flood risk and climate change.	•
SW7: By 2017, implement a scheme which assists the most vulnerable households in adapting their home to climate change.	•
SW8: By 2017, all significant council buildings are audited to assess risk to effects of climate change, and 50% of significant buildings with increased resilience to these effects.	•

Table 7: Sustainable Water Targets with Progress

Culture & Heritage and Health & Happiness

The Supporting Healthy Communities theme consists of two principles: Culture & Heritage and Health & Happiness. These principles focus on bettering the lives of the residents and council employees. As shown in Table NN, the progress for three out of the four priority targets for this theme are not measured.. These three targets include number of annual volunteer hours for Sutton Library and Heritage Service, number of working days per FTE lost due to sickness absence (excluding school staff), and utilisation of outdoor space for exercise/health.

Sutton's progress against these targets is not measured because the targets are key performance indicators (KPIs), not performance objectives. These three targets are the only KPIs throughout the One Planet Sutton framework. The volunteer hours, number of working days lost due to sickness, and use of outdoor space has decreased in 2014-15 from what is was in 2013-14 (OPS progress report). We did not gather interview data regarding this principle.

The final priority target is to increase the number of residents believing that they can influence council run services in the area to 50% by 2017. The Borough was able to accomplish and exceed this task. Progress for this target is measured by responses to a

residents' survey which is performed every two years; the last survey done in 2015 showed that 51% of the residents felt they could influence council run services in their area—an increase from the 44% of residents reported in the 2013 survey.

Target	Progress
CH 1 Priority: Number of annual volunteer house for the Sutton Library and Heritage Services.	•
CH 2: 100% of all council owned major venues and destinations to have sustainability action plans or environmental management systems in place by 2017.	
CH 3 : 95% of Local Authority schools signed up to the Eco-Schools scheme by 2017.	
CH 4: Produce a local plan to maintain/enhance/revive valuable aspects of culture and heritage.	
CH 5: By 2025, a One Planet Centre or equivalent environmental exhibition will be created in Sutton.	
CH 6 : By 2025, there will be an additional 2 large scale showcase projects identified and delivered.	
HH 1 Priority: Number of working days per FTE lost due to sickness absence (excluding school staff).	•
HH 2 Priority: Utilisation of outdoor space for exercise/health.	•

HH 3 Priority: Increase the number of residents believing that they can influence council run services in the area to 50% by 2017 (2011 baseline; 41% MORI).	•
HH 4: By 2025, Sutton Council and One Planet Sutton partners, will encourage employees to take responsibility for their wellbeing, health and happiness, as well as supporting them through provision of activities and resources. A methodology for monitoring employee wellbeing and satisfaction will be developed (or refined).	
HH 5: By 2025, Sutton Council, and One Planet Sutton Partners, will develop two significant initiatives to promote health and happiness in the community. These projects will be developed by using the Joint Strategic Needs Assessment (JSNA) to identify specific areas of need and will be supported by local insight where required.	
HH 6: By 2025, design services with well-being in mind and encourage residents to participate in activities that increase health and happiness. Activities will have: • A method for monitoring and improving both community wellbeing and satisfaction. • Evidence of embedding wellbeing into the design of services across major service areas. • Community involvement and participation in shaping well-being.	

Table 8: Health & Happiness and Culture & Heritage Targets with Progress

Supporting the Local Economy

The Equity and Local Economy principle focuses on sustainable economic development. As shown in Table 9, all of the 2017 priority targets have been achieved. Two of these three priorities are measured quantitatively, while the other one is determined qualitatively.

Contrary to common council perspectives across the OPS themes, the team responsible for the delivery of targets within this principle has found the current targets are realistic, manageable, and very fitting for the needs of the borough. Multiple members across all departments expressed two primary concerns: 1) sometimes they had either too much to accomplish, or 2) the tasks they were meant to aim for were so far out of reach, and they would never be realistic.

Despite the council having already achieved their economic targets, they are still striving to improve each year. The economic team believed that if you began with a set baseline, people know there could be delays in decisions and budget, but eventually you would be able to accomplish and make progress towards the goal if it is flexible, manageable, and realistic.

2014/15 data indicated an economic rate of 80.4%, and in 2015/16, they are at an economic activity rate of 82.7%. This is 2.7% over the rate they were aiming to

maintain. To reduce jobseeker's allowance, the Borough set and passed their goal of 2.5%. The jobseeker's allowance claimed was reduced by 1.5% in 2014/15, then even further to 1.0% in 2015/16. To facilitate creation of new green industry and renewable infrastructure, Sutton procured the Sutton Decentralised Energy Network (SDEN), which uses otherwise wasted heat to deliver low-carbon supplies of hot water for heating and domestic use.

Target	Progress
SLE1 Priority: Maintain economic activity rate above 80% by 2017 (80.1% as of October 2011 – December 2012)	•
SLE2 Priority: Reduce Job Seekers Allowance in 16-64 to 2.5% by 2017(2.7% in Jan 2013).	•
SLE3 Priority: Facilitate the Creation of new green industry and renewable infrastructure in Sutton by 2017.	•
SLE4: A review of Sutton's pay and rewards model will be carried out in 2015	•
SLE5: The Council will promote the Opportunity Sutton programme and specifically the 'matching skills with demand' project to reduce the inequality gap, seek to reduce Not in Education, Employment or Training (NEET) figures to 3.6% NEET not known 6% by 2017 (current baseline is 4.5% and 10% respectively in January 2012).	

SLE6: All reports to committee and Corporate Management Team will include consideration of sustainability impacts.	
SLE7: Ensure Fairtrade borough status is maintained.	

Table 9: Supporting the Local Economy
Target Progress

Summative Needs Assessment for Future Sustainability Framework and Evaluation of Targets

Common issues with OPS targets have arisen within the Sutton Council, and chief amongst these are three primary issues:

- All departments lack funding necessary to complete projects and implement programs
- Many OPS targets are unachievable and/or unrealistic
- OPS reporting methods do not always accurately represent the accomplished work

Members of every OPS principle report an inability to accomplish projects due to a lack of funding. Because of this lack of funding, many targets are believed by council staff to be unrealistic. Though staff agree that having a difficult target to reach provides some benefits, many of the current targets are completely unachievable with current resources. Another common issue is that the reporting methods within the OPS Annual Progress Report do not always accurately reflect progress made towards achieving targets, such as ZCB1 and the Zero Waste targets.

Figure 14 displays a similar trend in progress made towards OPS targets across all of the ten principles. Approximately 40% of the 2017 priority targets have been achieved or are on track, and on average 35% of the priority targets are in progress. Council staff feel that there are too many targets, which has likely been the cause for a majority of the non-priority targets having achieved no progress.

Some council staff have voiced concern regarding the council acting as a leader in sustainable efforts for the residents of the

Non-priority

- Target exceeded, met or on track
- Progress has been made, or has improved since the baseline year



2 Zero Carbon Buildings 3 1 Sustainable Transport 1 Zero Waste 4 Local & Sustainable Materials 2 2 Local & Sustainable Food 2 2 1 5 Natural Habitats & Wildlife 2 Sustainable Water 2 3

Priority

Figure 14: One Planet Sutton Target Progress Comparison

borough. Because of this, staff members have shown a desire to have council-specific targets such as ZCB Priority 1 and ZW Priority 2. Figure 15 shows that in the principles containing targets for both the council employees and the borough residents, the performance between the two groups is approximately equal.

Lack of knowledge about the OPS framework is common among council staff. Many project managers are unaware of their responsibility for specific targets and some lack knowledge of the framework entirely. Project managers frequently state that the framework does not change their work in any way; the projects carried out would be completed regardless of the sustainability framework due to international, national, or local policy.

COUNCIL AND BOROUGH TARGET PROGRESS COMPARISON

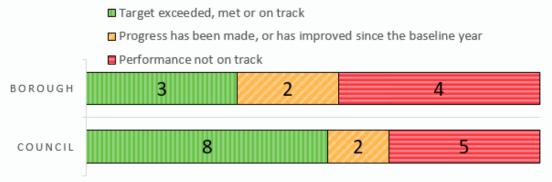


Figure 15: One Planet Sutton Progress of Council Targets vs Borough Targets

Comparative Framework Assessment

The review of alternative frameworks assisted in the synthesis of a recommendation for the future sustainability framework of the Sutton Council. The sustainability team identified four regions as possible exemplars of sustainability to seek strategic insight in the development of the future framework:

- Brighton & Hove
- Colchester
- Manchester
- Islington

In addition to these four regions, we reviewed and analysed two sustainability frameworks developed by the United Nations and Bioregional. Each of these locations and frameworks have a unique approach to sustainability. The reviews and assessments of these strategies and frameworks provided clarity to the relevant aspects of sustainable development; common factors of success, common hindrances, and factors to avoid.

Primary aspects of relevance across the reviewed strategies and frameworks include governance structures, reporting metrics, and methods for measuring success—typically through the use of targets or action plans. The focus of a sustainability framework varies greatly depending on the scope of impact, magnitude of desired

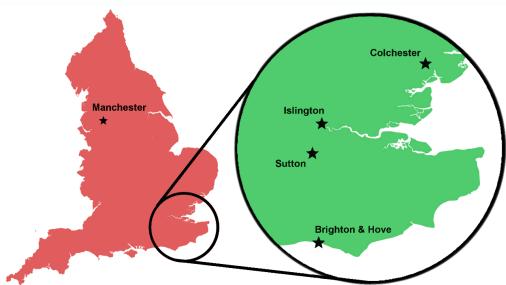


Figure 16: Map of UK Including Locations of Case Studies

effect, and what their designated target or actions are. Regardless of scope, magnitude, and focus of a framework, strategic insight is applicable to all areas of sustainable development. Different frameworks can vary in their efficiency depending on available resources and the current state of the region. A smaller, well-developed region to utilising a framework which is meant for a much larger, under-developed region that prioritises social or economic development over environmental aspects would be strategically inefficient.

Brighton & Hove currently utilise a formally endorsed and branded framework developed by Bioregional, while Colchester, Manchester, and Islington follow alternative methods. Colchester, Manchester, and Islington all follow unique strategies which are created directly from within each location. Bioregional and the United Nations' frameworks are necessary to research and gather information from because Sutton currently utilises the Bioregional framework. The United Nations framework is an overlying structure that should be able to be adjusted and applied to almost any region or location. In analysing these frameworks, we can determine the benefits and the downfalls of each strategy. Using the analysis of multiple frameworks and comparing each to the Borough of Sutton, we can determine which aspects or framework as a whole meets the needs of the borough so we can develop a successful recommendation.

Bioregional

Founded in 1994 as a registered charity by two local residents of the Borough of Sutton—Sue Riddlestone and Pooran Desai—Bioregional is an organisation that is dedicated to helping organisations and companies create a more sustainable way to live. Bioregional has evolved over time into an organisation that provides multiple services for organisations and companies aiming to become more sustainable. According to a representative at Bioregional, their services are intended for any sized organisation which includes local authorities, companies, or housing developers.

Bioregional developed a sustainability framework called One Planet Living (OPL) in 2003, which is based on the ten principles shown in Figure 17. Bioregional also developed the One Planet Action Plan, which is based on the ten principles and assists partners in the development of a personalised framework to fit their needs. The One Planet Living framework aims to achieve truly sustainable living, while the One Planet Action Plan outlines the strategies, actions, and targets to guide the process of achieving sustainability.

The ten OPL principles were developed during the creation of a project called bedZED—the United Kingdom's first large-scale, mixed use sustainable community and eco-village, completed in 2002. These

Equity & Local Health & **Happiness Economy** Culture & Land Use & Community Wildlife Local & **Sustainable** Sustainable Water Food Sustainable **Sustainable Materials Transport** Zero Waste Zero Carbon

Figure 17: Bioregional Principles

principles address each of the three pillars of sustainability (i.e. economic, social, and environmental sustainability), with particular emphasis on environmental sustainability as shown in Figure 18. Bioregional focuses their principles primarily on environmental aspects. According to a representative from Bioregional, the Greater London Authority

has always had economic and social justice policies and movements.

A partnering organisation adopting the One Planet Living framework is responsible for measuring and controlling the determined targets and reporting to Bioregional about their progress and accomplishments. For example, the Sutton Council controls how their targets are implemented and how success is measured, but they must send progress reports to Bioregional to show that they are still striving to achieve the targets of the One Planet Living framework.

Bioregional measures the success of the partnering organisations using Key Performance Indicators (KPI's) and benchmarking techniques. The techniques the partnering organisations use to measure success differ by location and defined targets. For example, Brighton & Hove uses the Bioregional framework; however, they do not use the same targets as Sutton, and will therefore have different KPI's and benchmarking techniques. Partners utilising the One Planet Living framework report back to Bioregional about their targets progress in 2017, 2025, and 2050. Even though they specifically report back to Bioregional at these times, numerous partners keep track and monitor the progress of certain targets every year.

The One Planet Living framework is meant to be flexible. Main principles that have

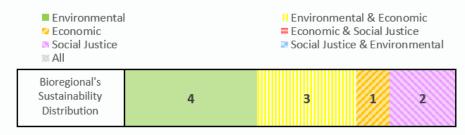


Figure 18: Bioregional Sustainability Distribution

been developed using the ten targets One Planet Living are refined and readjusted to better meet the needs of the partners. Flexibility may, however, be a double-edged sword. The Sutton Council, like many other councils, have constantly changing resources that are available to implement sustainability programs, so having flexible targets are beneficial to the council. This adaptability allows for the determination of targets to be based on available resources. If the Borough does not have the necessary resources to complete tasks, some of the tasks that may appear realistic and achievable may not be immediately addressed.

Success in a flexible framework relies upon the motivation of those in charge of implementation of sustainability efforts. When people feel passionate about what they are working towards, they are constantly looking for possible methods to complete tasks. Staff responsible for the completion of targets and partnering organisations may begin to neglect their duties of aiming for targets if they do not feel passionate about their targets and do not implement strategies and actions to try to achieve their targets. The OPL framework is based around each of the staff members being driven and held responsible for the targets in their department. Without full

dedication, the framework progress would begin to dwindle.

The One Planet Living framework does a great job setting high aspirations for tasks and allows Sutton to develop tasks and measuring methods tailored specifically to the Borough's community. The high targets and principles the OPL framework sets enables partners to strive to be leaders in sustainability.

Collected interviews indicated that the sustainability strategy implementation suffered from certain drawbacks. Most of the tasks set out to accomplish are not realistic. Sutton for example found the Health & Happiness objective difficult to achieve. This is because the health and happiness of the residents is difficult to measure and influence. Councils typically have little to no control over the health or happiness of residents (Interview, May 24). Another section Sutton struggled to meet was Land Use and Wildlife. Throughout the United Kingdom, there are multiple policies

on land use which lead to sacrificing most of the existing open land. This implicates methods of achieving targets within that priority.

Another primary issue regions are facing is the limited amount of available funding. An annual fee that varies depending on the location is required to utilise the formally endorsed and branded framework. The funds currently paying for this label could be allocated to staff members to focus on accomplishing their targets.

Staff members within councils generally have additional sustainability strategies focused on their department. The One Planet Sutton framework principles and tasks and the tasks within the stream leads framework do not always match up. This makes the One Planet Sutton framework very limiting and forces the stream leads to choose which strategy to prioritise, instead of embedding the principles and tasks within each other to accomplish both equally.

Partnering organisations achieve some targets and principles more effectively than others. A representative of Bioregional noted that Zero Carbon is one of the more effective principles that partners tend to accomplish (Interview, May 19). The Zero Carbon targets usually have specific benchmarks to measure success; this principle can be achieved more effectively than others with the proper methods and resources. Targets within the Local and

Sustainable Economy principle have also been achieved by partnering organisations; this principle and its targets were realistic for the team responsible to accomplish, as these targets are already aligned with targets from the economic department strategy. Despite the broad approach of the framework covering a wide variety of principles and tasks, aspects such as air pollution from transportation, or how to adapt to climate change are not represented in the tasks or principles of OPL (Interview, May 24).

Members of the Bioregional team agreed that the brand is beneficial because people tend to put a lot of trust in endorsed and branded systems (Interview, May 19). Paying to have the brand also allows for the organisation to be more involved in helping to develop the framework and responding to questions or concerns.

- Covers the whole spectrum of sustainability
- The targets set are ambitious
- There is a large timespan to meet targets
- Annual fees are required to maintain endorsement

Figure 19: Bioregional Key Takeaways

Brighton and Hove

The city of Brighton and Hove is located in East Sussex, South East England. According to the Brighton and Hove Council 2012 population estimate, there are about 275,800 residents in the city.

Brighton & Hove adopted the One Planet Living framework in 2013. The Framework was developed by Bioregional and covers all pillars of sustainability. The framework is managed by city and council staff, partnering organisations, activist groups, and volunteers. The Brighton & Hove framework follows the ten One Planet Living principles shown in Figure 20. These ten principles encompass all aspects of sustainability to ensure no aspects are forgotten.

Four of the ten principles are split into two sections; one for the council and one for the city. The divided principles are:

- Zero Waste
- Sustainable Materials
- Sustainable Water
- Health and Happiness

The undivided principles are:

- Zero Carbon
- Sustainable Transport
- Local and Sustainable Food
- Land Use and Wildlife
- Culture and Community
- Equity and Local Economy



Figure 20: One Planet Brighton Principles

The Brighton & Hove action plan sets high level objectives under each principle; these objectives express what the council and city aim to achieve. The Brighton & Hove action plan states where the city currently stands in relation to their objectives. The Brighton & Hove action plan lists actions, which are determined based off where the City currently stands, and where they strive to be. Actions produce an outcome that moves the

city towards achieving their high-level objectives. Each action from the Brighton and Hove Action Plan explains what the council or city will do, how it will be accomplished, how it will be funded, and when they plan to make progress on them.

The Brighton & Hove City Council experiences multiple success factors using the One Planet Living Structure. According to a Brighton & Hove council staff member, their success factors include developing actions on what was already being monitoring and being selective in determining what actions progress can be made on. Focusing on actions that were already being monitored allows for a comprehensive strategy for staff to use; this aligns strategies instead of implementing multiple strategies per department. Determining how new actions can be accomplished, funded, and time required for completion demands more resources. According to interviewee 17, proactively working on actions increases sustainability efforts. The capability to work on multiple actions at once increases progress for various actions instead of singular actions. Working on multiple actions at once is beneficial to achieve success for the overall framework

Brighton & Hove places numerical values on qualitative information; these numerical values are occasionally set in a scaled form to account for some of the data that cannot translate well. The qualitative to quantitative method expresses data in ways that the council and city can use to compare their performance to other regions and review their own progress more effectively. A Brighton & Hove council staff member claimed that it is easier to present and show improvements with quantitative data (I17, 6 June 2017). A concern with only using numerical values to depict progress is that some actions may lose meaning. The quality of the sustainability progress should be the center focus of actions.

According to an interview with a member of the Brighton and Hove City council, joint projects are the root of Brighton & Hove's success in sustainability efforts. The City of Brighton & Hove has partnered with multiple businesses and organisations to achieve their targets. These partnerships are facilitated through interest from the community, organisations, and political leaders. Funding and other resources increase when regions partner with multiple organisations; eliminating the lack of funding and resources increases progress on actions.



Figure 21: One Planet Brighton Sustainability Distribution

- Legislation heavily influences the targets set
- Joint projects reduce costs to borough
- Using a scaling system, you can numericaly analyse qualitive data
- It is important to have the council demonstrate leadership in sustainability

Figure 22: Brighton Key Takeaways

Colchester

The Borough of Colchester is located in Essex, England. According to the mid-2014 population estimates, Colchester has a population of about 180,420. Colchester has approximately the same population size as Sutton, which provides a good benchmark for comparative sustainability strategies. Colchester has been operating with a very different strategy than Sutton. The overall objectives of cutting carbon, reducing waste, increasing cleaner transportation, and other basic objectives can be seen throughout various strategies; however, how they are implemented and measured are not similar.

The sustainability strategy Colchester follows was developed by the Colchester Borough Council and their partners. They follow and utilise multiple documents, which include:

- The Environmental Sustainability Strategy
- The Environmental Sustainability Strategy Delivery Plan
- The Environmental sustainability strategy progress report
- The Environmental Sustainability strategy evidence base.

This strategy was implemented in 2015 and consists of identifying targets and actions they wish to accomplish by 2020.

The input from council members and residents focused on areas that they believed they could change. Other areas, like climate change, were addressed elsewhere and were

not up for debate (I19, 7 June 2017). The council made it a priority to align the Environmental Sustainability Strategy with department strategies. Lead officers were consulted to ensure there would be an alignment between strategies that were coming up for renewal and the ESS. Meetings with the Strategy Group for other Colchester Borough Council Officers were held to discuss strategies, progress, and support each other in the development of the documents. Since they did not work from templates, this approach helped give some structure to the approach of the strategy writing. The strategy was formed by creating priorities, key deliverables, specific environmental sustainability strategy (ESS) tasks under each deliverable, and then provided information about of what they want to achieve, how they plan to achieve it, the outcomes, and whose responsibility for what tasks.

The borough identifies eleven key focus areas. The strategy emphasises two main priorities. The first priority is focused around the council's actions, while the second is focused around the community, residents, and businesses. Enabling the council itself to aim to achieve targets is meant to set an example for the community. The Council could not expect the residents and community to strive to achieve tasks that the council staff themselves aren't trying to achieve. Under each of these broad priorities, there are multiple key deliverables. As shown in the Figure 23, the

first priority contains a total of eight deliverables under the first priority, and ten under the second priority. These deliverables provide the basis for more specific ESS tasks. For example: "the target aim to meet 40% reduction in carbon emissions by 2020 (from baseline year 2006/7) to assist the Council in meeting an 80% reduction in carbon emissions by 2050," or "annually publish our Greenhouse Gas Report" (Colchester Council, 31 March, 2015).

The ESS tasks focus mostly around the basis of environmental sustainability; however, their targets also encompass aspects under the themes: environment & economy, economy, and social justice & environment. Each of these tasks include a possible method of how they can be accomplished. Within the ESS documents is an outcome section for each task that describes what they expect to occur when each of the tasks are accomplished, and a section designating which position and/or partner is responsible for each task. This allows for council members to follow specific actions, know who is responsible for what task, and who they could partner up with based on similar actions. Colchester has no designated team focused around sustainability; therefore this gives members and partners the opportunity to work together and increase funding and the allocation of labor and other resources to each task.

Based on their objectives and methods, Colchester determines their success by



Figure 23: Colchester's Deliverables

focusing on whether an action was completed or is still in progress, how it was completed, and the final/current outcome of the task. An annual report conveyed if the borough was making progress on the tasks and if they were reaching their key

deliverables. This technique is very effective because it requires the members of the council to be continuously striving to achieve their targets. With the data they have collected from their actions, they are able to be nationally recognised as one of the top 5% by the Carbon Trust. Being nationally recognised reveals they are still a leader in sustainability even though they do not utilise a framework that allows them to compare themselves to other

Overall, this strategy functions very well for the

regions.

Borough of Colchester. The main success factor for Colchester's strategy, is flexibility and accommodating the people who are responsible for the tasks. Flexibility allows for the council and borough to change and update according to the resources they have available or new ideas that they wish to implement. An officer working in the borough emphasises the flexibility of the strategy, explaining, "we have added new focus areas as issues arise – again demonstrating the flexibility of the strategy and supporting documents." (I18, 7 June 2017) An example could be implementing actions pertaining to water quality as a new focus area for the strategy as issues arise.

The Environmental Sustainability Strategy gives clear direction to members whom are meant to be responsible for the delivery of the actions. The strategy is very easy to read and drill down no matter what document you utilise. Documents like the Evidence Base convey the need for Colchester's sustainability efforts, and provides evidence that they are being sustainable. The multiple documents allows for anyone to easily gather and determine what the borough plans are, how they will accomplish them, if they are being successful, and evidence to back up if they are being successful. Because they report annually, they are able to clearly and easily present messages and see where they are with delivery each year.

Colchester found a way to minimise common issues regions face by working closely with the community to gain allocated hours for work and funding. The Environmental Sustainability Strategy has two sections: one pertaining to the council while the other to the community. The

council wanted to lead the community in sustainability efforts and improve connections between the council and borough; hence the priorities are designated for the council to increase community leadership and develop resilient communities.

Partnership projects and community projects have received funding that allows the council to fill in gaps within the current council service provision. This provides additional funding and workforce that the council could not otherwise provide. The borough also has a high level of buy in, which helps facilitate community involvement, partnerships, and funding. The council alone does not have proper funding to provide actions; therefore, finding external sources of funding is essential for the delivery of their actions.

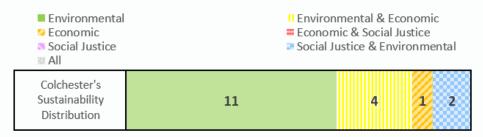


Figure 24: Colchester's Sustainability Distribution

- Structure goes from very broad at the top level to very specific at the bottom level
- Outlining/reporting on specific actions with multiple components help to identify progress
- Having staff choose the actions of the framework creates a more motivated workplace environment

Figure 25: Colchester Key Takeaways

Manchester

The city of Manchester is located in the North-West of England with a population of 2.55 million people. An extensive consultation process with residents, businesses, and partnering organisations in 2016 brought the Manchester Strategy. Known as Our Manchester, the development of the strategy was overseen by the Our Manchester Forum, a group drawn from stakeholders across the city (I20, 16 June 2017). The purpose of the Manchester strategy is for Manchester to become one the world's top flight cities by 2025 (Manchester Council, 2016).

Given the amount of external and fluctuating factors, the Our Manchester Forum has been wary of setting numerical targets. The Manchester Strategy identifies five themes; these themes are broad, unquantifiable aspirations. Several key performance indicators allow the Forum to monitor progress on each of the themes; actions are then carried out in order to raise or lower these numbers as desired (Manchester Council, 2016). The Our Manchester Forum will produce annual progress reports on the strategy in future State of the City reports (Manchester Council, 2016).

Since the creation of the Manchester strategy, the Forum has outlined 64 wewills; these we-wills are statements of intended accomplishment, some of which are numerically specific, others are subjective (I20, 16 June 2017). The Forum

has gathered all of the data necessary to report progress on these we-wills; however, they are working on a qualitative narrative to accompany the raw data (I20, 16 June 2017). The Forum seeks to "encapsulate the main things in the report and show what progress has been made", rather than report the information in tables (I20, 16 June 2017).

The themes of Our Manchester focus primarily on socio-economic aspects of sustainability, as shown in Figure 26. The Manchester Strategy reflects public feedback identifying basic elements of infrastructure as pertinent issues to focus resources; issues such as homelessness, litter, and poor road maintenance (I20, 16 June 2017). Other goals of the Manchester Strategy include improving education across the city, investing in research and new technology, and supporting the health and wellbeing of residents (Manchester Council, 2016). Additionally, the Our Manchester Forum has created a climate change action plan and is working to find a city-wide plan to become zero carbon (I20, 16 June 2017).

Community engagement is essential to Manchester's success. The city has a volunteer base of roughly 100,000 people, members of which help drive progress and development of Our Manchester (Manchester Council, 2016). The Our Manchester Forum taps into existing networks in the city, containing representatives of the Voluntary Community Sector, the Manchester Youth Council, Age Friendly Manchester, and others (I20, 16 June 2017). The Forum also contains several independent members from various communities: these individuals hold influence across the city, representing no organisation or board (I20, 16 June 2017).

- Broad targets allow for reporting on relevant factors
- Sustainable infrastructure leads to actions in one pillar of sustainability effecting actions in all
- Community engagement reduces costs and improves local sustainability as a whole

Figure 27: Manchester Key Takeaways

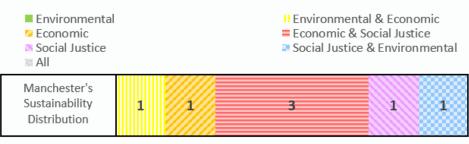


Figure 26: Manchester Sustainability Distribution

Islington

The borough of Islington is located in central London. Islington has a population of approximately 230,000, making it comparable in size to Sutton (Office for National Statistics, 2015). In contrast with many of London's other boroughs, sustainability is not at the forefront of the Islington council's priorities.

Though Islington has never adopted a sustainability strategy, a sustainability team operated within their council staff until the shift in party control (I18, 7 June 2017). In 2011, control of the council shifted from the Liberal Democrats to the Labour Party (I18, 7 June 2017). Members of the sustainability team were split between teams in charge of four different strategies shown in Figure 28 (I18, 7 June 2017) the Energy Strategy, the Air Quality Strategy, the Transport Strategy, and the Planning Core Strategy.



Figure 28: Islington Services

According to an Islington council staff member, the council currently focuses on sustainability topics such as carbon reduction and renewable energies in order to improve the health and happiness of the residents, rather than to make an impact on the environment. Despite claims that sustainability is not a priority of the council, many efforts focus sustainable socioeconomic developments. Providing residential areas with improved housing insulation and renewable energy sources reduces residential energy bills (I18, 7 June 2017). Furthermore, the use of renewables and sustainable transport leads to reduced carbon emissions, improving the health of residents (I18, 7 June 2017).

The organisational management of Islington can be seen in Figure 29. From the council

level, it then splits into five or six directorates, one of which is the Environment and Regeneration division. This is further split into divisions, with one of them being the public division. From here, it is split into the four services mentioned previously. Each service contains several teams, and some team split further into sub-teams. Energy services contains 13 teams.

Contrary to the management of OPS, Islington's organisational management provides no method by which to report progress regarding sustainable development. Differing from regions with sustainability frameworks, the Islington council produces only one sustainability-related report per year: the annual carbon emissions report, a report required by the City of London (I18, 7 June 2017).

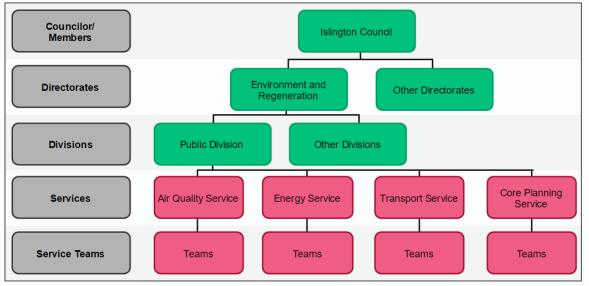


Figure 29: Islington Hierarchy

Without reporting methods, Islington ensures progress in sustainable development by using policies to enforce sustainable practices, such as limiting developers' production of carbon emissions when constructing new buildings (I18, 7 June 2017). This use of sustainability-related policies also helps to increase the funding available to sustainability-related projects for the borough. Because the council does not need to expend resources on generating reports or constantly monitoring certain aspects of sustainability, more money is available to the environment and regeneration department. Furthermore, if developers fail to abide by these policies that enforce sustainable practices, a fine is incurred; and the revenue generated from these fines is then used for mitigating some financial issues within related services (I18. 7 June 2017).

Islington's success in sustainability is largely due to the set quantitative requirements of the policies that enforce sustainable practices. The quantities of these sustainability-related policies are often determined by taking the minimum requirement set by the Greater London Authority, and increasing that quantity by a percentage to ensure greater progress than other boroughs.

Developing policy similar to Islington could provide Sutton with additional funding and ensure the sustainable development of areas where the council otherwise lacks influence. These policies will remain within the borough unless they are revoked from the council, providing a continuation of sustainable practices even if the Sutton sustainability team's resources are further reduced. Once these policies are passed, they require few resources to maintain and monitor. (I18, 7 June 2017). Islington efforts also prove the connection between all pillars of sustainability, with their environmental-centric actions having a direct impact on the health and happiness of the residents as well as the borough's economy.

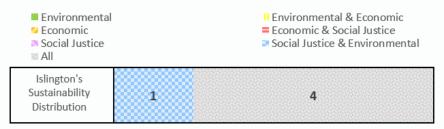


Figure 30: Islington's Sustainability Distribution

- Sustainability policies enable long-lasting sustainability efforts
- Enforcing sustainability-related policies reduces the required monitoring
- Actions in one pillar of sustainability can effect all pillars

Figure 31: Key Takeaways from Islington

United Nations' Sustainable Development Goals

Building off of the Millennium Development Goals from the Millennium Summit in September of 2000, the UN developed a set of Sustainable Development Goals (SDGs) as a sustainability guideline in 2015 (United Nations, n.d. a). The Sustainable Development Goals "recognise that ending poverty must go hand-in-hand with strategies that build economic growth and addresses a range of social needs including education, health, social protection, and job opportunities, while tackling climate change and environmental protection" (United Nations, n.d. b). The UN SDGs address a worldwide need for sustainability of unparalleled magnitude. Focusing primarily on socio-economic sustainable development in developing countries, the SDGs seek to accomplish tasks such as ending poverty and ending hunger everywhere.

The UN SDGs outline 17 goals (shown in Figure 32) that are further broken down into 169 individual targets. The 17 goals function similar to the 10 OPS principles, sharing several common themes—One Planet Sutton's Sustainable Water principle covers similar topics to the SDGs Clean Water and Sanitation goal. As seen in Figure 33, the Sustainable Development Goals have a large emphasis on social sustainability, with over 50% of their goals focused on some social sustainability aspect.



Figure 32: UN Sustainable Development Goals

The 169 targets, like the goals, have an emphasis on the social justice pillar of sustainability. Many of the targets that fall under environmental or economic-focused objectives have social implications. The targets are framed in bold, sweeping terms such as ending all poverty, eradicating the transmission of HIV/AIDs, and stopping all violence.

The secondary emphasis of the Sustainable Development Goals is on economic

sustainability, as sustainable development creates job opportunities, as well as more stable jobs. This helps the UN's SDG to achieve their ultimate goal of eliminating all poverty.

Though the Sustainable Development Goals do not provide specific action plans for each target, the UN suggests that those implementing the SDGs use the action plans provided by the Addis Abada Action Agenda (United Nations, July 2015). These 134 action plans provided are broad and nonspecific, with no key performance indicators specified as the actions contained are broad.

Due to the international awareness of the SDGs, many of the targets are inapplicable to a local authority such as the Sutton Council. This discrepancy makes a direct implementation of the UN's SDGs undesirable for the borough. A Sutton council staff member acknowledged that the United Nations Sustainable Development Goals are too large in scope for the borough; despite this, the framework covers many relevant topics that can be adjusted and subsequently implemented at the local authority level.

With Sutton having only 20% of their principles focused on social sustainability, the SDGs offer many targets that could possibly be implemented into the borough's framework. An example of a SDG target that can be adjusted to fit Sutton's need is

SGD 4.4: "By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship" (United Nations, 15 October 2015) This target could be adjusted to "Annually, provide a job preparation program that includes topics such as resume building and that promotes a vocational education."

Sutton's current efforts on social sustainability revolve around programs that promote the health and happiness of the residents in the borough. The targets of the Sustainable Development Goals suggest that through success in creating equality and equal opportunity for all can improve the happiness and wellbeing of the residents; this suggests that different efforts can be made towards Sutton's social sustainability targets, while yielding the same desired results.

The Sustainable Development Goals also demonstrate that in order for a region to be sustainable, they must start by developing a sustainable infrastructure. By working from the ground up, it allows for sustainability to be applied throughout an entire region.

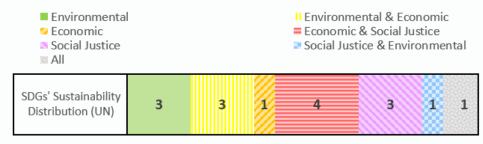


Figure 33: UN Sustainability Distribution

- Social sustainability in Sutton can focus more on equality/equal opportunity
- Developing a sustainable infrastructure is key when a region is attempting to be more sustainable
- Sustainability frameworks at a national/ international level operate differently than at the local authority level

Figure 34: Key Takeaways from UN SDGs

Conclusions from Case Studies

The Sutton Council has made strong efforts to become the most sustainable borough in London. The Council displayed great ambition when adopting the One Planet Sutton framework in 2009 and continues to make admirable progress. After acknowledgements from representatives from Bioregional and OPS project managers that many of the current targets are unattainable, it is likely time move to a more manageable approach, especially given resource constraints.

One Planet Sutton project managers from each of the ten principles report lack of funding as the cause for many of their targets to be unattainable or unrealistic. Additionally, the vast number of targets outweighs the resources available to the borough. Placement of several targets within certain principles is thematically misaligned; for example, within the Sustainable Water principle, target SW 8 does not relate to water. Furthermore, many council staff members are unaware of the existing sustainability framework within Sutton, including some project managers.

The development of sustainable infrastructure brings long lasting, effective results. The United Nations Sustainable Development Goals identify the efficient use of resources in transport and construction, green energy technology such as solar panels and wind turbines, and

- Lack of funding as the cause for many of their targets to be unattainable or unrealistic.
- The vast number of targets outweighs the resources available to the borough
- Many council staff members are unaware of the existing sustainability framework
- The development of sustainable infrastructure brings long lasting, effective results.
- The development of policy requires green procurement and construction practices.
- Green procurement policies can generate revenue for the borough.
- Community engagement and partnerships with external organisations increase productivity and saves resources.
- Education on sustainable development helps people develop knowledge, skills, values, and behaviours needed for sustainable development
- Key performance indicators and actions effectively measure and achieve targets.
- Separating council-orientated targets from resident-oriented targets allows the council to act as a leader for the residents.
- Subjectively quantifying unmeasurable target progress on a scale allows for more effective monitoring.

Table 10: Key Findings from Sustainability Strategy Case Studies

education of climate change as **essential elements of sustainable development**.

The Borough of Islington has become a leader in sustainability within the United Kingdom due to **the development of policy**

requiring green procurement and construction practices. Though the focus of the Islington Council's efforts lies in Socio-Economic aspects of sustainability, these practices work towards all elements of sustainability: improving the quality of

insulation in residential buildings, for example, decreases energy loss within the building and negates heating costs for residents. Islington policy requiring sustainable development charges a fine for infringement of these policies, generating revenue for the borough to spend on sustainability projects.

Community engagement and partnerships with external organisations increase productivity and saves resources.

The Manchester Strategy formed from "an extensive consultation process with residents, businesses and partner organisations" and continues to thrive with help from their volunteer base of 100,000 residents—roughly 4% of the population (The Manchester Strategy 2016). The United Nations Educational, Scientific, and Cultural Organisation states that "education on sustainable development, in all social contexts, helps people develop knowledge, skills, values, and behaviours needed for sustainable development (Education for Sustainable Development, 2017)".

Key performance indicators and actions effectively measure and achieve targets.

The UN SDGs and the Manchester Strategy outline several KPIs to keep track of progress toward their goals allowing the measurement of relevant factors without identifying these factors within the goal or target explicitly. Brighton and Hove uses actions rather than targets, providing specific methods to achieve their goals.

According to Brighton council staff, separating council-orientated targets from resident-oriented targets allows the council to act as a leader for the residents and holds the council accountable for sustainability efforts, and have found that subjectively quantifying unmeasurable target progress on a scale allows for more effective monitoring.

Suggested Solutions for Identified Gaps

- Lack of funding as the cause for many of their targets to be unattainable or unrealistic.
- The vast number of targets outweighs the resources available to the borough
- Many council staff members are unaware of the existing sustainability framework
- The development of sustainable infrastructure brings long lasting, effective results.
- The development of policy requires green procurement and construction practices.
- Green procurement policies can generate revenue for the borough.
- Community engagement and partnerships with external organisations increase productivity and saves resources.
- Education on sustainable development helps people develop knowledge, skills, values, and behaviours needed for sustainable development
- Key performance indicators and actions effectively measure and achieve targets.
- Separating council-orientated targets from resident-oriented targets allows the council to act as a leader for the residents.
- Subjectively quantifying unmeasurable target progress on a scale allows for more effective monitoring.

Table 11: Key Findings from Sustainability Strategy Case Studies The benefits of the One Planet Sutton framework do not outweigh the drawbacks. Interviews with Sutton council staff showed the One Planet branding to be minimally beneficial, and the annual fee to bioregional is likely unsustainable; because of this, the Borough should abandon the One Planet framework, and instead develop its own strategy. Despite the loss of endorsed ambition abandoning OPL would bring, alternative methods have proven effective options for displaying leadership in sustainable efforts.

Using existing policy as a baseline, the Islington Council holds itself to a higher standard by developing policy that builds upon this baseline (I18, 6 June 2017). The Sutton Council should set targets that go beyond existing policy, showing the borough is striving to be a leader in sustainability. Furthermore, the borough should develop new policy integrating the current efforts of sustainability into the law; this provides security for these efforts should political priorities of the council shift, holds residents and businesses accountable for sustainability, and generates revenue for the borough to provide funding for sustainability projects.

The borough has seen difficulty achieving the ambitious targets currently in place, often reporting failure where progress has been made; to counter this, the borough should implement a tiered system of targets, further outlined in the structure section on page 35. Brighton and Hove has found that the employees responsible for delivery of targets should be involved in the creation of these targets.

The OPS targets are far too numerous given the available resources. The Manchester Strategy uses broader goals referred to as themes and monitors progress on these themes using KPIs; Sutton should adopt a strategy with fewer, broader targets monitored by looking at specific contributing factors, further outlined in the structure section on page 35.

Interviews with OPS project managers have shown the organisation of targets under certain principles is not always intuitive. Brighton & Hove finds separating council targets from resident and business targets identifies the council as an exemplar to the city. Additionally, both Manchester and Brighton & Hove seek to outline numerical targets when measuring qualitative data, even if only on a subjective scale. The Target Recommendations section on page 37 outlines suggested changes to the existing targets.

Interviews with OPS project managers displayed a sever lack of engagement in the sustainability efforts across the council; much of the council staff is unaware of the sustainability strategy in place, and some project managers are unaware of their

overseen targets. The borough should ensure all staff are aware of and committed to assisting the efforts of the sustainability strategy, whatever it may be now or in the future.

Many sustainability strategies such as Our Manchester, the UN SDGs, and the Colchester Environmental Sustainability Strategy have a document outlining the purpose of the plan; these documents make the plans approachable and provide insight into the intent of the authority delivering the plan. The Borough of Sutton should create a document outlining the purpose of their sustainability strategy.

Recommended Organisational Structure and Reporting Methods

The structure of the recommended framework consists of themes, objectives, deliverables with KPI's, and actions. A comparison of the One Planet Sutton structure and the recommended structure is shown in Figure 35. The recommended framework has four themes, which encompass aspects from each pillar of sustainability and are more suitable towards the organization of deliverables. The four themes are:

- Socio-economic Sustainability
- Sustainable Developments
- Limiting Borough Carbon Emissions
- Environmental Conservation and Preservation

The Socio-economic Sustainability theme encompasses all aspects which focus on social and economic sustainability. Social and economic aspects are constantly overlooked in sustainability strategies because central government policies are directed towards them; this theme entails targets which directly impact those two pillars.

The Sustainable Developments theme consists of targets pertaining to buildings and the habits of their inhabitants.
Sustainable developments affect all three aspects of sustainability; developing and updating environmentally-friendly buildings

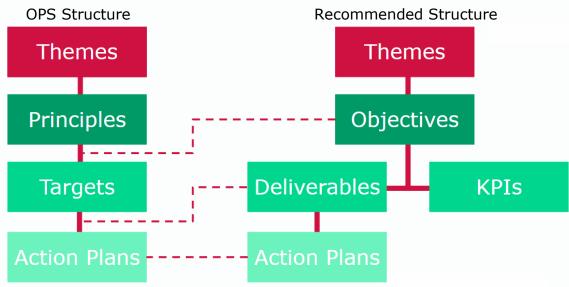


Figure 35: Recommended Sustainability
Organistaional Structure

brings benefits to the environment and boosts social and economic factors.

The Limiting Carbon Emissions theme consists of objectives relating directly to air quality, including sustainable transport. Limiting the amount of carbon emissions is a priority of the borough.

Environmental Conservation and Preservation theme relate to biodiversity. The Borough of Sutton is recognized as being one of the greenest Boroughs of London; the Environmental Conservation and Preservation theme strives to maintain this status and improve the overall quality of the environment.

Each theme has varying amounts of objectives. Objectives are very broad; a

recommended example of an objective for the Limited Borough Carbon Emissions theme is: "improve the quality of the air in the borough."

Under each objective are a set of deliverables. These deliverables encompass a tiered target system. Information gathered from interviews conveyed that some people found it beneficial to have targets that were ambitious, while others found ambitious targets make people shy away. Each target will be divided into three tiers instead of having only one type of target. The tiers are:

- Minimum Targets
- Goal Targets
- Ambitious targets

These three tiers allow for the individuals responsible of delivering the targets to

determine how much progress they can make and identify which level of targets would be the most realistic. For example, only utilising Ambitious Targets would flounder if there are not enough resources available. This would require the responsible individuals to prioritize the targets they are aiming towards instead of making progressing towards all of the targets.

The first tier consists of **Minimum Targets**; these targets follow the bare minimums that laws or policies require. The Minimum Targets are set in place so that the borough can make sure they are achieving what is required by them at a national and global level. These targets are required by an alternative source; coordinating and implementing these targets within a singular strategy ensures there will be one overlying strategy instead of multiple smaller strategies.

The second tier is **Target Goals**; these targets are formed by increasing the Minimum Targets by a certain percentage. This percentage will vary depending on the target and what is realistic to achieve. The Target Goals are the achievable targets everyone is striving towards; these ensure that the borough is performing at a higher standard than the Minimum Targets and can still be compared to other regions. Target Goals would help the borough maintain a competitive edge for being a leader in sustainability.

The third tier of the strategy is **Ambitious**Targets. Ambitious Targets are the highest level of realistic targets that can be achieved; these targets are designed for the people responsible for the delivery of targets whom find it more effective to have very challenging targets. This encourages people to strive towards high targets if they have the available resources or are already able and have surpassed their Minimum and Goal targets. Ambitious Targets ensure that the borough is striving to be a leader in sustainability.

Key Performance Indicators (KPI) will be used to monitor progress and determine success of the Borough. KPIs allow for numerical analysis and reporting of progress. The data from KPIs display relevant accomplishments as opposed to progress on targets; these measurable values show the Borough's progress on the targets and allows for easy comparison of data to other regions. There is a corresponding KPI for each deliverable.

Targets can often be broad and leave people with an unclear understanding of how to achieve them; this structure contains actions assigned to targets. Actions are developed by the individual responsible for delivery of the target and implement a starting point to approach progress on targets and enables possible procedures to be easily envisioned.

Recommended Target Progress Tiering System

Using targets (or similar sustainability goals) from the other regions in our case studies, we have determined a list of recommended objectives with relevant KPIs for Sutton should they choose to design and adopt their own framework; this list is located in Appendix 2.

The recommended objectives come from the categorisation and synthesis of all targets, KPIs, and benchmarking techniques from the reviewed strategies/frameworks into three categories:

- objectives
- deliverables
- · action plans

All items in the deliverables category were reviewed in order to identify the indicators which are most relevant to Sutton. We then grouped the KPIs by their relevance and determined the corresponding objective for each group; the result of this process was 78 deliverables across 14 objectives.

The borough should determine specific action plans for itself, as our case studies have allowing project managers to take part in designing the structure of their sustainability strategy to be the most effective approach to sustainability in a council staff environment. Furthermore, we do not recommend the use of all 78

suggested deliverables—instead, the project managers should choose which deliverables are the most relevant, and which deliverables are achievable. The deliverables themselves are up for interpretation, and would likely require modification by the borough if adopted.

Each deliverable has a corresponding KPI, usually a numerical indicator used to set the target of and measure the progress of the deliverable. The KPIs should be determined by the council, as they have more knowledge on the resources available to them.

As the resources available to the borough change, the priorities in sustainability may change as well. Regardless of the future sustainability strategy, the council should reevaluate their objectives periodically, with help from the project managers who oversee them.

A common issue among OPS project managers is that the numerical targets set by One Planet Living were too ambitious; in order to alleviate this, we recommend the use of a three-tiered KPI system, as shown in Figure 36.

The minimum target is set by the requirement from local, national, and international laws; though this does not show leadership in sustainability, it shows that Sutton is making efforts towards sustainability.

The target goal is the aim of most deliverables, and is meant to show that Sutton is striving to become a leader in sustainability; these targets are meant to be realistic with the borough's current resources and must be set to a moderately ambitious level in order to show some leadership in sustainability. A staff member



Figure 36: Recommended Target Tiering System

of the Islington Council recommends taking the minimum requirement from existing policy and increase it by a certain percentage (determined on a deliverable-bydeliverable basis). The ambitious target is set for three reasons:

- to show Sutton as a leader in sustainability,
- to encourage council staff who are motivated by ambitious targets, and
- to allow Sutton to continue to focus on certain aspects of sustainability once their target goal has been met.

The following is an example of the recommended tiering system:

- Deliverable—to recycle/composite a certain percent of all waste by 2020.
 - Minimum target: 50% of all waste recycled/composted, as set by the Mayor's Municipal Waste Management Strategy.
 - o Target Goal: 55% of all waste recycled/composted.
 - Ambitious target: 60% of all waste recycled/composted.

Note that the suggested numbers for the target goal and ambitious target have been chosen arbitrarily for demonstration, and are not intended for implementation.

The benefits to this tiered target system is that it allows for the council staff to more accurately represent how much work they have put towards the target. It also allows the borough employees to feel rewarded when they reach the target goals, as it gives a sense of accomplishment. For the staff who work harder when given difficult tasks, the ambitious targets are there for them to try to achieve.

Perceived gaps in this tiering system are that the target goals and/or the ambitious targets may be set too low. As an external organisation is not setting specific targets, it is up to the council and the council staff to determine the numerical targets which need to be met. This would misrepresent Sutton as a leader in sustainability when they could possibly be doing more. Part of this could be alleviated by referring to other boroughs and cities and using their numerical targets as a reference, however the gap still exists.

This target system aims to properly display Sutton's progress in sustainability so far. The borough is already very sustainable, and it is important that the effort put in by the council staff is properly reflective of that.

The borough has already made great strides in sustainability, and though there are some issues with their current sustainability strategy, they are on track to becoming a sustainable borough. This could not be possible without the council staff and members that are committed to making Sutton the most sustainable borough in London.

Authorship

Abstract (Josiah)

Acknowledgements (Josiah/Jamison)

Exec. Summary (Josiah/Jamison)

Table of Contents (Josiah/Jamison)

Introduction to the Assessment of Sutton's Sustainability Framework

- Introduction to the Assessment of Sutton's Sustainability Framework (Josiah)
- Overview of Sustainability (Josiah)

Overview and Analysis of One Planet Sutton

- Governance and Organisational Structure of the One Planet Sutton Sustainability Framework (Jamison)
- One Planet Sutton Principle Overviews
 - Zero Carbon Buildings (Josiah/Jamison)
 - o Sustainable Transport (Josiah)
 - o Zero Waste (Josiah)
 - Local and Sustainable Materials (Josiah)
 - Local and Sustainable Food (Omran/Casey)
 - o Sustainable Water (Omran/Casey)
 - Natural Habitat and Wildlife (Omran/Casey)
 - o Health and Happiness (Casey)
 - o Culture and Heritage (Casey)
 - Local and Sustainable Economy (Casey)
- Summative Needs Assessment for Future Sustainability Framework and Evaluation of Targets (Casey)

Comparative Framework Assessment

- Preface (Casey)
- Bioregional (Casey)
- Brighton (Omran/Casey)
- Colchester (Casey)
- Manchester (Josiah)
- Islington (Jamison)
- United Nations Sustainable Development Goals (Jamison)

Recommendations for Sutton's Future Sustainability Strategy

- Conclusions from Case Studies (Josiah)
- Suggested Solutions for Identified Gaps (Final Draft: Josiah/ Initial Draft: Omran)
- Recommended Organisational Structure and Reporting Methods (Casey)
- Objective Recommendations (Jamison)

References (Jamison/Josiah)

All Figures (Jamison)

Editor (Josiah)

Cover Photo (Omran)

References

- Bioregional. (September 2016). One Planet Goals and Guidance for Local Government Organisations.
- Brighton & Hove. (2013). DRAFT OPL Key Performance Indicators. Retrieved from http://www.brightonhove.gov.uk/sites/brightonhove.gov.uk/files/CSP_04_07_13_OPL% 20KPIs%20update.pdf
- Brighton & Hove. (2015). Brighton & Hove's Sustainability Action Plan.
 Retrieved from https://www.brighton-hove.gov.uk/sites/brighton-hove.gov.uk/files/PandR%20version%20 OPL%20SAP(3)%20with%20Forewords. pdf
- Brighton & Hove Council. (2011). 2011
 Census Briefing: City profile. Retrieved from
 http://www.bhconnected.org.uk/sites/bhconnected/files/2011%20Census%20Briefing%0-%20City%20Profile.pdf
- Brighton & Hove Council. (2014). Brighton & Hove City Snapshot Summary of Statistics 2014. Retrieved from http://www.bhconnected.org.uk/sites/bhc onnected/files/City%20Snapshot%20Summary%20of%20Statistics%202014.pdf
- Colchester Council. (31 March, 2015).
 Retrieved from
 http://www.colchester.gov.uk/CHttpHand
 ler.ashx?id=17432&p=0

- Education for Sustainable Development. (2017, June 11). Retrieved June 15, 2017, from http://en.unesco.org/themes/education-sustainable-development
- Food for Life. (n.d.). Award Criteria. Retrieved from http://www.foodforlife.org.uk/schools/crit eria-and-guidance
- Manchester. (2016). The Manchester Strategy.
- Office For National Statistics. (2015). Office for National Statistics (ONS) Population Estimates, Borough and Ward. Retrieved from https://data.london.gov.uk/dataset/office-national-statistics-ons-population-estimates-borough/resource/c8457adc-cebd-4f77-97e7-02571c791b79#
- Sustainable Environment Organisation.
 (n.d.) UK Sustainable Development
 Strategy. Retrieved from
 http://www.sustainableenvironment.org.uk/Action/UK_Strategy.
 php
- Honey, T. (n.d.). Sutton Food Forum. Retrieved from http://sustainablefoodcities.org/findacity/ cityinformation/userid/456
- Sutton Council (2016). One Planet Sutton Progress Report 2015-16. Retrieved from http://www.oneplanetsutton.org/news/201

- 5-16-one-planet-sutton-progress-report-released/
- UNECE. (2005). Sustainable development—concept and action. Retrieved from http://www.unece.org/oes/nutshell/2004-2005/focus_sustainable_development.htm 1
- United Nations. (1987) Our Common Future
 —Brundtland Report. Oxford University
 Press.
- United Nations. (1992). Agenda 21, Rio Declaration, Forest Principles. New York: United Nations.
- United Nations. (July 2015). The Addis Ababa Action Agenda from the Third International Conference on Financing for Development. Retrieved from http://www.un.org/esa/ffd/ffd3/wp-content/uploads/sites/2/2015/07/Addis-Ababa-ActionAgenda-Draft-Outcome-Document-7-July-2015.pdf
- United Nations. (21 October 2015). Transforming our world: the 2030 Agenda for Sustainable Development.
- United Nations. (n.d. a). Division for Sustainable Development. Retrieved from https://sustainabledevelopment.un.org/ab out
- United Nations. (n.d. b). United Nations Sustainable Development Agenda. Retrieved from

http://www.un.org/sustainabledevelopme nt/development-agenda/

Interviews

- Interviewee 1. (16 May, 2017). Personal interview.
- Interviewee 2. (16 May, 2017). Personal interview.
- Interviewee 3. (16 May, 2017). Personal interview.
- Interviewee 5. (17 May, 2017). Personal interview.
- Interviewee 6. (17 May, 2017). Personal interview.
- Interviewee 7. (19 May, 2017). Personal interview.
- Interviewee 8. (22 May, 2017). Personal interview.
- Interviewee 9. (22 May, 2017). Personal interview.
- Interviewee 10. (23 May, 2017). Personal interview.
- Interviewee 11. (24 May, 2017). Personal interview.
- Interviewee 12. (24 May, 2017). Personal interview.
- Interviewee 13. (25 May, 2017). Personal interview.

- Interviewee 14. (25 May, 2017). Personal interview.
- Interviewee 15. (31 May, 2017). Personal interview.
- Interviewee 16. (5 June, 2017). Personal interview.
- Interviewee 17. (6 June, 2017). Personal interview.
- Interviewee 18. (6 June, 2017). Personal interview.
- Interviewee 19. (7 June 2017). E-mail.
- Interviewee 20. (16 June 2017). Telephone.

Appendix 1: Council Perspectives Tables

Zero Carbon Buildings		
Target	Progress	Comments from OPS Stream Leads and Project Managers
ZCB1 Priority: 50% reduction in CO ₂ from Council buildings by 2017, from a 2010/11 baseline.		 A CO2 reduction target for the council is important as it illustrates leadership and commitment. It also supports corporate commitments A 50% reduction in CO₂ by 2017 from council buildings is unachievable without building new, more efficient offices for the staff. The progress of this target is not easily represented. 60% of the projects which aim to reduce council's carbon emissions have been completed; however, due to incorrect estimates and a reduction in funding, this target is not on track to be met. The planned introduction of the carbon offset fund from early 2018 in line with Policy 31 of Sutton's emerging Local Plan has significant potential to deliver a number of solar PV retrofit projects on Council buildings, Council-owned commercial properties, schools and some Sutton Housing Partnership (SHP) sites across the Borough. Specific projects have been identified in a recent report on the 'Sutton Solar PV Programme' undertaken by AgilityEco on behalf of the Council. In seeking to deliver 'zero carbon' standards for all major residential developments as defined by the GLA, Sutton's carbon offset fund will secure Section 106 contributions from developers (priced at £60m per tonne over 30 years) in order to offset any shortfall in on-site emissions reductions through off-site measures. However there is a need for the Council to undertake a realistic assessment of the extent of further CO2 reductions that could be achieved on Council buildings and over what timescale. Planning guidelines and detailed proposals for the operation of the carbon offset fund in Sutton are currently under preparation (PW)
ZCB2 Priority: 20% reduction in borough CO ₂ emissions by 2017 (from a 2007 baseline).		 This target is likely to be met but it is important for CO2 reduction to be included in the future due to govt and London level targets, corporate commitments, and links to fuel poverty Participation in the South London Domestic Retrofit Scheme, initiatives such as the Sutton Solar PV Programme, implementation of the carbon offset fund and the introduction of more ambitious on-site CO2 reduction targets for new residential

		developments could have a major impact on Borough CO2 emissions over the medium to long term. The new OPL Plan should acknowledge the UK target to achieve an overall 80% reduction in emission by 2050 and set interim targets accordingly in line with this trajectory.
ZCB3 Priority: Annual reduction in scope 1 and 2 CO2e emissions.	•	• This is a reporting requirement for central government so the data is collected each year regardless of whether or not it is a target.
ZCB4: 20% reduction in CO ₂ from school buildings by 2017 from 2010/11 baseline.		 Council are now not responsible for school buildings so this may not be an appropriate target Further percentage reductions of CO2 emissions from school buildings could be delivered through the Sutton Solar PV programme, and additional funding from the carbon offset fund (see above) should help to accelerate the implementation of identified projects. However further work needs to be done to identify the extent of CO2 reduction that could be achieved (based on key constraints such as anticipated funding, available roof space and building orientation) as the basis for setting a new target in the OPL Action Plan
ZCB5: Council to sign up to Climate Local to promote low carbon living.	•	 Target now irrelevant If the Council has already achieved this target it might be difficult to carry this target forward in the new OPL Action Plan
ZCB6.1: All new homes to meet Code for Sustainable Homes level 4 from April 2011 onwards.	•	 Unfortunately this target will need to be deleted from the new OPS Strategy since the Council is no longer able to implement planning policies or set conditions requiring developers to achieve Code for Sustainable Homes level 4 in all new dwellings. This is because the Government withdrew the Code for Sustainable Homes in 2015.
ZCB6.2: All new major residential and non-residential buildings to be Zero Carbon in Hackbridge from 2011 onwards.		 HACKBRIDGE Since the new Local Plan will be requiring zero carbon standards to be achieved for all new residential developments Borough-wide, this OPS target is arguably redundant. It might be better to focus on the delivery of the proposed SDEN district heat network instead since this is the means by which zero carbon and near-zero carbon standards can eventually be delivered in this neighbourhood "To deliver the proposed Sutton Decentralised Energy Network (SDEN) within Hackbridge and develop an Energy Masterplan for delivering a district heat

		network within Sutton Town Centre". (further work needed to refine this target and set appropriate target dates)
ZCB6.3: 40% reduction in CO2 emissions for new major residential and major non-residential developments (compared to Building Regulations 2010).		 MINOR RESIDENTIAL DEVELOPMENTS (1-9 UNITS) This OPS target should be updated as follows to align with the targets set out under Policy 31 of Sutton's emerging Local Plan (which was submitted to the Planning Inspectorate on 12 April 2017 and scheduled for adoption in early 2018) "All minor residential developments involving the creation of 1 to 9 self-contained dwellings to achieve at least a 35% reduction in on-site CO2 emissions compared to Part L of the Building Regulations 2013 (or equivalent) through a combination of energy efficiency measures, the efficient supply of energy and renewable sources of energy generated on-site".
ZCB6.4: New residential developments to meet zero carbon standards from 2016 onwards.		MAJOR RESIDENTIAL DEVELOPMENTS (10+ UNITS): This OPS target should be updated as follows to align with the 'zero carbon' target set out in Policy 5.2 of the London Plan and under Policy 31 of Sutton's emerging Local Plan: "All major residential developments involving the creation of at least 10 self-contained dwellings to achieve 'zero carbon' standards as defined in the GLA Guidance on Preparing Energy Assessments 2015 as amended. A 'zero carbon' development is one that achieves at least a 35% reduction in on-site CO2 emissions compared to the Building Regulations 2013 (or equivalent) through a combination of energy efficiency measures, the efficient supply of energy and renewable sources of energy generated on-site. The remaining regulated emissions, to 100%, must be offset through CO2 reduction measures elsewhere either funded through planning contributions to the Council's carbon offset fund or through a unilateral undertaking by the developer" [The final 2 sentences could be included as a footnote to the main target]
ZCB6.5: Major non-residential developments to achieve a BREEAM rating of 'Outstanding' from 2017 onwards.	•	 MAJOR NON-RESIDENTIAL DEVELOPMENTS: This OPS target should be updated as follows to align with the targets set out under Policy 31 of Sutton's emerging Local Plan which was submitted to the Planning Inspectorate on 12 April 2017 and scheduled for adoption in early 2018:

		"All major non-residential developments involving the creation of >1,000m2 gross commercial floorspace or located on a site >1 ha to achieve at least a 35% reduction in on-site CO2 emissions compared to Part L of the Building Regulations 2013 (or equivalent) through a combination of energy efficiency measures, the efficient supply of energy and renewable sources of energy generated on-site". "All major non-residential developments involving the creation of >1,000m2 gross commercial floorspace or located on a site >1 ha to achieve an 'Excellent' rating under the appropriate BREEAM scheme".
		PROPOSED NEW TARGET: CARBON OFFSET FUND • I would propose a new target as follows "To develop and implement a Carbon Offset Fund for Sutton by April 2018 in order to ensure that financial contributions are secured from all major residential developments (through Section 106) for the purpose of offsetting the shortfall in emissions reductions achieved on site through carbon reduction measures off-site" I disagree - this is more appropriate as an action, I think the target should be around % renewables in the borough
ZCB7: To produce and adopt a strategy on fuel poverty to ensure that carbon emissions from vulnerable resident's homes are reduced and their quality of life improved.	•	Now irrelevant as achieved

Target	Progress	Comments from OPS Stream Leads and Project Managers
ST1 Priority: Increase the percentage of Council staff commuting by sustainable transport from a baseline of 42% in 2011, to 52.5% in 2017.	•	 This target should be retained and expanded to include a selection of businesses across the borough. Some officers believe that the council should be setting an example, thus this target should remain This target is only measureable through bi-annual staff travel surveys. The level of resources has dropped since this target was adopted. This will need to be considered for the next round of targets.
ST2 Priority: Increase the percentage of children travelling to school by sustainable transport from 76% (2009) to 80% in 2017.	•	 Measured through Hands Up surveys at schools which are now undertaker automatically as a follow up to Bikeability training courses. Where schools do not offer bikeability we will follow up separately to get an annual survey. The level of resources has dropped since this target was adopted. This will need to be considered for the next round of targets.
ST3 Priority: Increase the use of sustainable transport from a 2009/10 - 2011/12 average baseline of: 1% cycling to 2.2% cycling 28% walking to 29.6% walking 16% public transport to 17.6% public transport by	•	 The data gathered to measure this target is not statically significant, as it is reliant on TfL telephone surveys. The data is on a 3 year rolling period due to the small sample size. However this is the only way to measure borough transport data. Engagement with Transport for London is needed to discuss future targets The level of resources has dropped since this target was adopted. This will

2017.		need to be considered for the next round of targets.
ST4 Priority: Reduction in NO ₂ annual mean concentrations and exceedances and reduction on PM ₁₀ annual mean concentrations across all	•	 Measuring the air quality of the borough is difficult as there are only five air quality measuring devices around the borough, which are intentionally placed in areas with poor air quality.

•	This target is necessary	but irrelevant to	"Sustainable Transport"

Some feel that this target isn't necessary.
• The data from this target feeds into the ZCB 3 Priority target which is a
annual reporting requirement from central government.

ST5: Reduce CO2 emissions from Council fleet

vehicles by 20% by 2017 (from a 2008/09

monitoring sites.

baseline*)

Zero Waste

	Progress	Council Perspectives
ZW1 Priority: Reduce waste from council offices by 38% by 2017.	•	 Staff behaviours heavily influence the waste streams in council offices Continued resources for behaviour change campaigns is needed to help deliver this target.
ZW2 Priority: 85% of the waste stream in council offices to be recycled or composted by 2017.	•	 Staff behaviours heavily influence the waste streams in council offices Continued resources for behaviour change campaigns is needed to help deliver this target.
ZW3 Priority: Reduce waste from households by 5% per household (equivalent to 3,854 tonnes) by 2017.	•	 Basing targets on population size (i.e. 5% reduction per capita) would be more useful as the population is rising Continued resources for behaviour change campaigns is needed to help deliver this target. Some elements of this target are outside the Council's control i.e. production of less/ lighter packaging, increased lifespan of products, consumerism
ZW4 Priority: Increase the household recycling rate to 40% by 2017.		 Target does not recognise that recycling rates increase by step change rather than in a linear manner Future targets need to recognise that not only do london authorities have the highest amount of difficult housing types to provide recycling but they also have the highest proportion of the population that are least likely to recycle Continued resources for behaviour change campaigns is needed to help deliver this target. Residents behaviour influences the recycling rate. Recycling rate can be negatively impacted by an initiative that decreases the amount of waste e.g. home composting, love food hate waste and increasing recycling is not always the most environmentally friendly option Some elements of this target are outside the council's control, if manufacturers make recyclable packaging lighter, recycling rates may decrease

		Reductions in budgets and services may influence the recycling rate.
ZW5 Priority: Achieve the Mayor of London's 2017 Emissions Performance Standard of -0.154 tonnes of CO2 emissions per tonne of waste managed.	•	 Good to focus on carbon rather than tonnages as the purpose of managing waste sustainably is to reduce the impact of waste management of climate change Modelling carbon is complex but the Mayors model provides a standard approach and a way of benchmarking ourselves against our neighbours. Mayors EPS updates based on the latest thinking may influence how Sutton performs As for the other targets continued resources for behaviour change campaigns is needed to help deliver this target Dependent on the construction of the ERF Some elements of this target are outside the council's control
ZW6 Priority: 4,000 tonnes of Local Authority collected waste sent to landfill by 2017.	•	Dependent on the construction of the ERF
ZW7: Achieve Carbon Intensity Floor in 2017 of 400kg of carbon dioxide emissions per kWh of energy generated from waste.	•	 Mayors CIF updates based on the latest thinking may influence how Sutton performs Dependent on the construction of the ERF and SDEN
ZW8: Reduce waste from schools by 30% by 2017.	•	 There is no baseline for measuring waste from schools The council has no control over the waste from schools
ZW9: Increase recycling and composting in schools to 40% by 2017.	•	 There is no baseline for measuring waste from schools The council has no control over the waste from schools
ZW10: At least 70% of waste by weight collected by the council from commercial operations to be reused, composted or recycled by 2025 with an aspiration to move ahead of this target and be closer to 90%.		 There is no baseline for measuring recycling performance from the council's C and I customer The council has some control over the waste from C and I customers by setting pricing and offering a comprehensive recycling service but cannot fully influence the behaviour of these customers
ZW11: At least 95% of waste by weight generated by council construction and demolition projects to be reclaimed or recycled by 2025.		This target is very difficult to measure

Local and Sustainable Materials

Target	Progress	Council Perspectives
LSM1 Priority: Achieve an increase in % spend by council with SMEs from previous year.	•	 There has been a significant increase in spend with SME's over the last few years, currently 57%. Consideration needs to be given to how we define an SME as the current definition in quite broad and can include some quite large organisations (250 persons, 50 million Euro) Consideration should be given to a fixed figure instead of the year on year increase
LSM2 Priority: Achieve an increase in number of council office materials reused or recycled from previous year.	•	No Comments Given
LSM3: Increase resident's awareness of reuse facilities in the borough through the publication of a borough directory of reuse centres by 2017.	•	 Awareness may not lead to an increase in re-use/ repair Dependent on residents behaviour towards and perception of reuse A national recycling directory exists that incorporates reuse Dependent on residents being interested enough to look at a directory Organisations involved in reuse may not think of what they do as reuse
LSM4: Reuse of own materials: Introduce a resource distribution system (similar in nature to WARPit / Greenforce) by 2017 to reduce council waste and increase reuse of materials.	•	No Comments Given
LSM5: By 2017, all new major council led developments should use: 10% recycled content by value, 15% local materials by weight, 95% timber should be FSC certified (or equivalent).	•	 Achievement of this target by 2017 would need a sample project to be analysed by one of the council's sustainability Framework consultants to see what is currently being achieved on a major project & to advise us further on meeting the target. There are no expertise within the council nor a fee structure to undertake this task. This target may end up being in conflict with Projects team achieving Best Value across the materials they specify. If we are to choose or nominate companies that use more recycled content there would be a cost to the project.

		 There is also the task of administering this task on a major project and policing it, which cannot be covered within the council construction fee and would need to be passed to a consultant to undertake. Again a cost to the project and the Council. Given the cost assigned to a sample project and given enough time and resource it has been felt that the target could be achieved at a later date e.g 2018 or 2019, but this would require additional funding.
LSM6: Achieve level 3 of Sutton's Flexible Framework by 2017.		 Achievement of this target hasn't been feasible due to the cost involved. We contacted other councils who had implemented the Defra flexible framework and found that this involved at least 1 FTE member of staff. Instead due to resource constraints we have worked to develop Sustainability in Commissioning guidance and improve sustainability within our procurement policies. Sutton is moving to become a Commissioning Council with more and more services being commissioned. It is important that sustainability is embedded into this and reflected in any future sustainability strategy which the council adopts.
LSM7: Maintain a UK Government approved accredited Environmental Management System across the whole of the council's operations.	•	This target is no longer feasible. The council withdrew from EMAS in 2015 and now uses One Planet Sutton with additional Environmental Management tools to manage its environmental impact. There is no longer resource to achieve this target and it should be removed from any future Sustainability strategy and framework.
LSM8: Seek to work with skills and sharing partners to promote options to residents and businesses by 2025.		No Comments Given

Local and Sustainable Food

Target	Progress	Council Perspectives
LSF1 Priority: Enable an increase in people to take part in growing their own food locally by 2017.	•	 Course is covering its costs This target and LSF2 are delivered and monitored by members of the food forum not the council. Any future targets would need commitment from the forum.
<u>LSF2 Priority:</u> Increase the number of opportunities for local food producers to sell local produce in Sutton by 2025.	•	The market is running because the college lets them use the land for free. Currently being funded by Sutton. Looking for other location to run the market
LSF3: Achieve a maximum score in the list of London Boroughs showing leadership in food locally by 2017 (London Food Link – Good Food For London).	•	Since this was adopted many more criteria have been added to GFL meaning this target is now not so clearly linked to the aims of OPS, and undeliverable
LSF4: 65% of schools signed up to the Food for Life programme by 2017.	•	 Should look for other boroughs that achieved this and follow a similar scheme I dont agree - what have been the benefits to the borough? Is this still a priority?
LSF5: Develop projects and agreements with local businesses to promote sustainable food by 2017.	•	Not being fundedNot a SMART target and suggest it is removed
LSF6: Carry out local food mapping to show where organic and sustainable foods can be purchased in the borough by 2017.	•	No Comments Given
LSF7: Produce an Allotment Strategy by 2017.	•	No Comments Given
LSF8: Develop and adopt minimum buying standards for sustainable healthy food where practical on future catering contracts and monitoring processes for council catering by 2025. Use minimum buying standards where practical on renewal of catering contracts by 2025.		No Comments Given

Natural Habitats and Wildlife			
Target	Progress	Council Perspectives	
NHW1 Priority: By 2017, maintain volunteer numbers participating in nature projects through Sutton Nature Conservation Volunteers from a 2011/12 baseline (baseline equates to 600 volunteer days a year).	•	 Volunteers assist in managing conservation areas. Volunteer participation is reliant upon staff time to engage and direct volunteer time. Without core funded staff, \$106 monies have been utilised, which are now exhausted. Without core funded staff, the current delivery of volunteer participation will markedly drop or completely cease post 17/18 	
NHW2 Priority: 3,000 school children attending biodiversity events per year from 2012 onwards (baseline 2,800 school children attending events in 2011/12).	•	 Flagged because of lack of core funding. It is essential to educate future generations in understanding biodiversity and Ecosystem Services, which underpin human life 	
NHW3 Priority: Develop and implement management plans for Sutton nature conservation sites (from a baseline of 35 sites with management plans in 2012 to 39 sites in 2017).		 This target is unrealistic, (According to assessment, cannot see that 35 sites ever had a management plan in first place, high 20's at most). 4 new management plans have been created within the target time 35 plans requires a lot of staff time to maintain the necessary updates. There is a current lack of staff to input the necessary time A number of the sites that require management plans are under the management of Parks and there are no resources within Parks to create or update plans Target becomes deprioritised, compared to delivering other, site based, targets for biodiversity 	

below:

• A number of projects are currently underway. Most of this work is

PREVIOUSLY DEVELOPED OR 'BROWNFIELD' DEVELOPMENT

This target should be carried forward with minor amendments as set out

undertaken by the Wandle Trust.

dwellings built each year from 2012-13 onwards

(including new build, conversions and change of

NHW4 Priority: To implement 3 river

improvement projects identified by the

directive.

Environment Agency as necessary steps to achieve targets set through the water framework

NHW5 Priority: Ensure that 90% of new

use) are located on previously developed or 'Brownfield' land.	"Ensure that at least 90% of new dwellings built each year from 2017-18 onwards (including new build, conversions and change of use) are located on previously developed or 'brownfield' land of no / negligible biodiversity value and aspire to meet the target of 96% set out in the London Plan 2015" (NB: backgarden development is classified as 'greenfield')
NHW6 Priority: Create a revised suite of sustainable development policies for inclusion in the council's new local plan for adoption by 2017.	 Ensure nature sites have correct management prescriptions. SUTTON LOCAL PLAN This target should be carried forward with minor amendments as set out below: "Prepare and adopt updated planning policies on a range of environmental sustainability issues as part of Sutton's new Local Plan dealing with zero carbon/energy, flood risk management, climate change adaptation, environmental protection and biodiversity / habitats by 2018. Monitor the effectiveness of each policy against the relevant environmental objectives and targets set out in the Local Plan and the OPS strategy through the production of an 'Authority Monitoring Report (AMR) in December each year"
	 ADDITIONAL PLANNING GUIDANCE I would recommend adding the following targets: "Prepare and adopt planning guidance on each of the following environmental sustainability issues by 2019: 1. Carbon Offset Fund 2. Flood risk management and sustainable urban drainage (SuDS) 3. Green Space Factor (GSF) 4. Guidance on how the 'Environment Bank Biodiversity Impact Calculator' (DEFRA's preferred 'biodiversity offsetting' methodology) should be applied to new developments" 5. Guidance on applying the 'catchment based approach' to the River Wandle and other water courses within the Borough (by 2020)

NHW7: Enhance the quality of 12 ha chalk grassland habitat and restore or create 2 ha by 2017 (baseline is 51 ha existing chalk grassland habitats in 2012).	•	 Agri-environment schemes set targets for some sites and One Planet Sutton targets reinforce these Partnership working is essential in delivering grazing on chalk downlands to improve their condition and meet targets but this is under threat post 17/18 without the requisite core funding towards staff to administer these partnerships
NHW8: To create 1 Ha new woodland, hedgerows or orchard areas in accordance with tree policies and improve 2 Ha existing woodland areas for biodiversity by 2017.	•	 Essential to have long term planning (next 50-100 years +) However, targets frequently change due to shifting short-term politics. Multiple factors come into account to create long term results, these need to be taken into consideration to move forward on projects. Some strategies and targets lack dovetailing between them.
NHW9: Improve Sutton's Housing Estates for Biodiversity from a baseline of 4% of sites in 2012 to 6% of sites including biodiversity features in 2017.	•	Urban greening (retro-fitting and creation) is essential for human occupation of cities (see Biodiversity SPG) but there are no current resources to work with partners on improving their housing stock / land for biodiversity

Sustainable Water

Target	Progress	Council Perspectives	
SW1 Priority: Flood alleviation schemes implemented for 3 critical drainage areas by 2017.	•	 A flooding related target is important but this is no longer appropriate, a new target should be developed with the flood officer Progress depends on funding 	
SW2 Priority: Achieve a year on year saving in council water usage.	•	 Affected by council involvement The council should be leading by example and reducing its own water usage but a clearer target is needed eg do we mean water use per head or per square footage? 	
SW3: By 2017 identify all areas at risk of local flooding. Begin to implement flood resilience measures, and document number of homes with reduced risk of flooding.	•	Achieved so needs updating	
SW4: Assist 6,000 households in reusing and reducing their water usage by 2017. 47% of homes have water meters fitted.	•	Achieved - mainly the responsibility of SESW	
SW5: Maximum loss of water 24ML by 2017; achieved through consistent repair and maintenance of water supply infrastructure.	•	Responsibility of SESW I would not include again	

Equity and Local Economy

Target	Progress	Council Perspectives	
SLE1 Priority: Maintain economic activity rate above 80% by 2017 (80.1% as of October 2011 – December 2012)	•	Realistic based on the current economic situation	
SLE2 Priority: Reduce Job Seekers Allowance in 16-64 to 2.5% by 2017(2.7% in Jan 2013).	•	Realistic based on the current economic situation	
SLE3 Priority: Facilitate the Creation of new green industry and renewable infrastructure in Sutton by 2017.	•	Sutton is an appealing community, businesses and other companies will want to invest to benefit the community	
SLE4: A review of Sutton's pay and rewards model will be carried out in 2015	•	This was completed and the council now pays the London Living Wage to all of its direct employees. A new benefits package has also been introduced.	
SLE5: The Council will promote the Opportunity Sutton programme and specifically the 'matching skills with demand' project to reduce the inequality gap, seek to reduce Not in Education, Employment or Training (NEET) figures to 3.6% NEET not known 6% by 2017 (current baseline is 4.5% and 10% respectively in January 2012).		No Comments Given	
SLE6: All reports to committee and Corporate Management Team will include consideration of sustainability impacts.		 There is an expectation that all report where relevant include sustainability impacts Consideration of the need to carry out a 'One Planet Sutton Impact Assessment' in the guidance on carrying out Equality Impact Assessment 	
SLE7: Ensure Fairtrade borough status is maintained.		No Comments Given	

Appendix 2: Recommended Themes, Objectives, and Deliverables for Future Sustainability Strategy

Limited Borough Carbon Emissions (CE)

CE Objective 1: Improve the quality of the air in the borough			
Deliverable	Theme	Sources	
Borough carbon emissions	Limited Borough Carbon Emissions	ZCB 2 Priority, Zero Carbon (Council) Brighton	
CO2 emissions of fleet vehicles (Council)	Limited Borough Carbon Emissions	ST 5, ZCB1 Priority	
Scope 1+2 CO2 emissions	Limited Borough Carbon Emissions	ZCB 3 Priority	
NO2 + PM10 concentration	Limited Borough Carbon Emissions	ST 4 Priority, UN 11.6.2	
% of energy generated by renewables	Limited Borough Carbon Emissions	Sustainable Development 7.2, UN 7.2.1, Brighton ZC	
£ Spent on carbon reductions	Limited Borough Carbon Emissions	Zero Carbon (Council)	

Sustainable Developments (SD)

SD Objective 1: Reduce waste, reuse materials, and recycle			
Deliverable	Theme	Sources	
Materials reused	Sustainable developments	LSM 4	
Awareness of reuse centers	Sustainable developments	LSM 3	
% of councils generated waste from construction/demolition recycled	Sustainable developments	ZW 11, Brighton ZW	
% of domestic waste	Sustainable developments	ZW 3 Priority, ZW4 Priority, ZW 6, Brighton ZW	
% of waste reused, recycled, or composted	Limited Borough Carbon Emissions	ZW 10, LSM 2 Priority, SW 7, UN 12.5.1, Brighton LSM	
% of all waste sent to landfill	Sustainable Development	Zero Waste (City)	

SD Objective 2: Update existing building to be more sustainable			
Deliverable	Theme	Sources	
# of homes that meet level 4 for sustainable homes.	Sustainable developments	ZCB 6.1, Zero Carbon (City) Brighton	
# of buildings resilient to flood risk / climate change	Sustainable developments	SW6	
# of residential developments meeting ZC standards	Sustainable developments	ZCB 6.2	
Carbon Emissions from vulnerable residence homes	Limited Borough Carbon Emissions	ZCB 6.3, ZCB 6.4	

Empty properties as a % of all housing stock.	Sustainable Development	
Reduce mains water use at certain developments	Sustainable Development	1.4.3

SD Objective 3: Require new building developments to be sustainable			
Deliverable	Theme	Sources	
Breeam rating # of buildings	Sustainable developments	ZCB 6.5	
% of new dwellings built of brown field land	Sustainable developments	NHW 5 Priority	
Increase in new homes	Sustainable Development		
# of policies related to sustainable developments	Sustainable Development	13.2.1	

SD Objective 4: Prioritise resources towards sustainability efforts			
Deliverable	Theme	Sources	
% of council owned major venues and destination with sustainability action plans or environment management systems	Sustainable developments	CH 2	
£ spent on SMEs	Sustainable developments	LSM 1 Priority, UN	

SD Objective 5: Encourage sustainable habits amongst council employees		
Deliverable	Theme	Sources
% of council staff commuting by sustainable transport	Limited Borough Carbon Emissions	ST 1, ST 3 Priority, Sustainable Transport (Council) Brighton
Council water usage	Sustainable developments	SW 2 Priority ,SW 5
Council waste	Sustainable developments	ZW 2, Zero Waste (Council) Brighton
# of council materials reused	Sustainable developments	LSM 5, Zero Waste (Council) Brighton
Waste in council office	Sustainable developments	ZW 2 Priority , LSM 4

SD Objective 6: Encourage sustainable habits amongst residents and businesses		
Deliverable	Theme	Sources
# of houses reducing water usage	Sustainable developments	SW5
Waste/ household	Sustainable developments	ZW3 Priority
Household recycling rates	Sustainable developments	ZW 4 Priority
Perceptions of littering an issue in the city.	Socio-Economic Sustainability	
Passenger and freight volumes, by mode of transport.	Limited Borough Carbon Emissions	9.1.2
Per Capita Food Waste	Socio-Economic Sustainability	Responsible Consumption & Production, 12.3

Socio-Economic Sustainability (SES)

SES Objective 1: Ensure equal opportunity and basic human rights for all residents of the borough		
Deliverable	Theme	Sources
Quality of life for vulnerable residence	Socio-Economic	ZCB 7
Proportion of households living in fuel poverty.	Socio-Economic Sustainability	
% of children under 16 living in low-income families.	Socio-Economic Sustainability	
Gap between residents and workplace wages.	Socio-Economic Sustainability	Brighton ELE
Number of homeless people in temporary accommodation.	Socio-Economic Sustainability	UN 1.2.1

SES Objective 2: Ensure residents live a healthy lifestyle		
Deliverable	Theme	Sources
Use of outdoor space for health	Socio-Economic	HH2 Priority
Number of years expected to live in good health post-65.	Socio-Economic Sustainability	
Active People Survey- participation in 30+ minutes of sport, one or three times per week.	Socio-Economic Sustainability	
Healthy life expectancy at birth.	Socio-Economic Sustainability	
Childhood obesity at year 6.	Socio-Economic Sustainability	
Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods.	Socio-Economic Sustainability	3.7.1

Proportion of the target population covered national programme.	by all vaccines included in their	Socio-Economic Sustainability	3.b.1
A greater proportion of physically active adults	lults and fewer physically inactive	Socio-Economic	Health and Happiness (City)

SES Objective 3: Seek to improve the local economy		
Deliverable	Theme	Sources
Economic activity rate (%)	Socio-Economic	UN 8.5.2, Manchester
Job seekers allowance (%)	Socio-Economic	SLE 2 Priority, UN
# of sick days	Socio-Economic	HH 1 Priority, Health and Happiness (council) Brighton
Inequality gap	Socio-Economic	SLE 5, Manchester A4
The gap between tax income and public spending in Sutton	Socio-Economic Sustainability	
% growth in jobs	Socio-Economic Sustainability	UN Economic Development 8.1
Number of residents on out-of-work benefits.	Socio-Economic Sustainability	

SES Objective 4: Ensure local schools are operating sustainably		
Deliverable	Theme	Sources
% of schools with food for life	Socio-Economic	LSF 4
% of schools signed up for ECO schools	Socio-Economic	СН3
# of school children attending Biodiversity events per year	Socio-Economic	NHW2 Priority
School waste	Sustainable developments	ZW8
Schools recycling/composting	Sustainable developments	ZW 9
% of children traveling to school by sustainable transport	Limited Borough Carbon Emissions	ST 2 Priority, ST 3 Priority, Health and Happiness (CIty) Brighton
CO2 emissions from school buildings	Limited Borough Carbon Emissions	ZCB 4
Schools with access to land for food growing. Schools offering opportunities to learn about food growing	Socio-Economic	Food Production (Council and City)

SES Objective 5: Empower the community to take sustainable actions			
Deliverable Sources Sources			
% of residence believing they can affect council run services	Socio-Economic	HH3 Priority	
# of annual volunteer hours for Sutton Library and Heritage services	Socio-Economic	CH 1 Priority	
Proportion of population satisfied with their last experience of public services.	Socio-Economic Sustainability	16.6.2	
# of services promoting food for London score	Socio-Economic	HH 6, LSF 3	

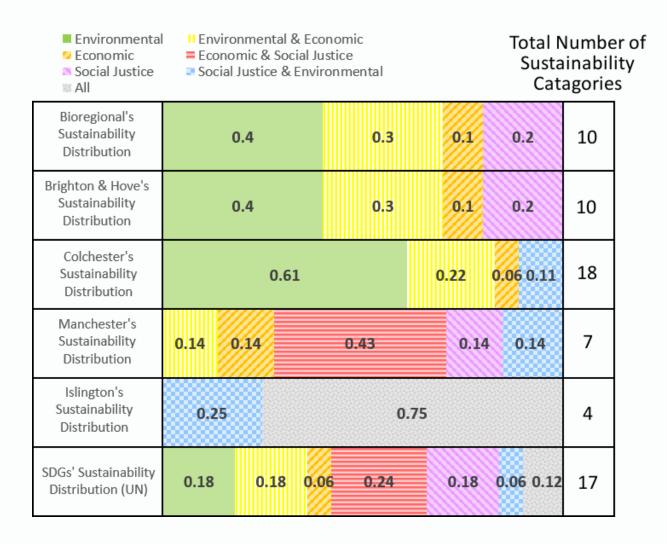
# of opportunities for local food providers to sell food	Socio-Economic	LSF 2 Priority
Emotional wellbeing: Improved self reported wellbeing	Socio-Economic	Health and Happiness (City)

Environmental Conservation and Preservation (ECP)

ECP Objective 1: Implement projects which help improve natural habitat and wildlife		
Deliverable	Theme	Sources
# of volunteer projects	Environmental Conservation and Preservation	OPS NHW 1 Priority
# of river implementation projects	Environmental Conservation and Preservation	NHW 4 Priority
Total official flows (official development assistance plus other official flows) to the agriculture sector.	Environmental conservation and preservation	2.a.2
Official development assistance and public expenditure on conservation and sustainable use of biodiversity and ecosystems.	Environmental conservation and preservation	15.a.1
Public awareness/ understanding, condition of local wildlife sites, new urban chalk grassland monitoring, other sites.	Environmental Conservation and Preservation	Land Use and Wildlife (Council and city)

ECP Objective 2: Improve the quantity and quality of existing greenspace		
Deliverable	Theme	Sources
New Ha of woodland	Environmental Conservation and Preservation	NHW 8, Brighton LUW
# of improved ha at priority woodland	Environmental Conservation and Preservation	NHW 3 Priority
Quality of ha of chalk grasslands	Environmental Conservation and Preservation	NHW 7
Forest area vs land area	Environmental conservation and preservation	15.1.1

Appendix 3: Sustainability Distribution Comparison



Appendix 4: Interview Questions & Preamble

Interview Preamble

Hello, my name is [interviewer's name], these are my project partners [project partners present], and we are students from Worcester Polytechnic Institute in the United States. We are conducting a research project in collaboration with the Sutton council to help identify a new sustainability strategy for the borough. Before we begin, we would like to let you know that you will remain anonymous, this interview is voluntary, and you may choose to skip any questions you feel uncomfortable answering or may end the interview at any time. Would you mind if we took an audio recording of this interview? [If any person says no, the interview will not be recorded]? If you prefer not, we will just take notes. Would you mind if we quoted you in our report? If we do quote or paraphrase any part of our conversation, we will give you the option to review our final report before publication.

Bioregional Interview

- What is your role with Bioregional?
 - a. How long have you held this position?
 - b. How long have you been with Bioregional?
- 2. What is the target size of population and governance for this framework?
 - a. [If no target size] What is the average population size of a One Planet Living partner? (ask for examples)
- 3. It appears that the Bioregional One Planet Living framework focuses more on environmental rather economic or social sustainability, would you say that is a correct perception?
 - a. If so why does it have that emphasis?
- 4. How has One Planet Living evolved since its creation? Why do you think this is?
- 5. Why did you choose this 10-principle structure? Did you consider something like One Planet Sutton's 5-theme structure?
 - a. Do all partners use the 10-principle structure?
- 6. We know that in order to become a One Planet borough/city, it requires achieving certain targets and a yearly fee: (I feel like we should ask them about the range of the fees)
 - a. After achieving the One Planet Living status, what is required to maintain it?
 - What are the consequences to be had if the targets aren't achieved
- 7. What do you consider to be the advantages/strengths of your framework?
 - a. What do you consider to be the disadvantages/flaws?
- 8. What are successful KPIs and benchmarking techniques you have seen other One Planet Living partners use?
- 9. What targets/principles have One Planet Living locations been consistently doing well with, if any?
 - a. Struggling with, if any?
- 10. How would you compare One Planet Suttons current performance compared to other partners using the Bioregional framework?
 - a. What partners do you believe is functioning the best under the One Planet Living Framework?
 - i. What services is Bioregional providing to this partner?

- ii. Is there a common theme around the partners which are performing well?
- b. Are there any partners struggling to succeed with the One Planet Living Framework?
 - What services is Bioregional providing to this partner?
 - ii. Is there a common theme around the partners which are not performing well?
- 11. What is acceptable for a new One Planet action plan: do you need KPIs, indicators, and targets, or do you just need to strive for the new goals?
- 12. What advice would you give to the Sutton council in order to improve their current performance? What would you recommend they keep doing?

Script for Brighton and Hove

Sample Interview Questions:

Background:

- 1. What is your role at Brighton and Hove Council?
 - a. How long have you held this position?
 - b. How long have you been at Brighton and Hove Council?
- 2. When the City was determining its sustainability strategy and framework, what made the One Planet Living framework the most desirable? Why?
 - a. Did you consider using any other sustainability frameworks?
 - i. If so, which ones did you consider and why did you choose not to use them?

Framework Structure:

- 3. Which, if any, aspects of sustainability were most important when determining a new sustainability strategy and framework for the City? (Environment, social justice or economy)? Why is that?
- 4. What do you consider to be the main limiting factors for your implementation of One Planet Living? (Example: cost, human resources?)
- 5. What do you consider to be the main driving factors for the implementation of One Planet Living at Brighton and Hove? (Example: active participation of residents, support from Councilors or staff, other?)
- 6. Do you prioritise any of the One Planet Living targets? If so, which ones do you prioritise and why?
 - a. Is there anything you believe is missing from your sustainability strategy? Do you or the council believe any targets are unnecessary, redundant, or unattainable?
- 7. Are there any common factors which contribute to the successful achievement of the One Planet Living targets?
 - a. Can you provide some examples?
 - b. What specific types of benchmarking techniques are used to measure the successful targets?

- 8. What One Planet Living targets has the council struggled with?
 - a. What issues have you encountered?
 - b. What specific types of benchmarking techniques are used to measure the struggling targets?

Governance Structure:

- 9. What governance structure is in plan for the management of One Planet Living and Sustainability at Brighton and Hove Council?
 - a. Who oversees delivery of each OPL principle?
 - b. Are the targets monitored internally and/or externally (council staff, community, company)? Who reviews the progress / framework?
 - c. What resources are available to implement the framework? (staff, money, volunteers and community partners)
- 10. How often do you report your progress? (annually, semi-annually, etc?)
 - a. To whom do you report this?
 - b. Are you facing any challenges in the ways you report certain targets?
 - c. What is the preferable way to report progress against your targets (qualitative vs quantitative)
- 11. What does your senior management consider success to look like? (Example: high efforts made, reaching targets, community involvement, etc).

Additional Opinions, Questions, Advice:

- 12. If you did not already have a strategy in place, would there still be alternative frameworks or strategies that you would be following?
- 13. Can you tell us a bit about your experience of using the One Planet Living Framework and what would you consider to be its strengths and weaknesses?
 - a. What are your biggest concerns with this framework?
 - b. What are the most beneficial factors of this framework?
 - c. Do you think a formal and branded framework holds the city and its residents to a higher standard than if the was framework was created specifically by the city itself?

- d. If you were not utilizing a formally endorsed and brand name framework such as OPL, do you have any ideas of how you would compare your success to other locations? (Example: if you were to develop your own strategy, how would you compare the success of your sustainability to other locations?
- e. Do you believe having a formally endorsed and branded framework is better than not using an endorsed and branded framework, if so why?
- 14. Do you know of any other boroughs or cities that we should interview about this topic?
- 15. Are there any documents that you suggest we review other than:
 - a. Brighton & Hove's Sustainability Action Plan
 - b. City Sustainability Action Plan
 - c. Corporate plan 2015-2019
 - d. OPL Key Performance Indicators
- 16. What advice would you give to others formulating or re-evaluating a framework for sustainability?

Script for Colchester

Background:

- 1. What is your role at the Colchester Council?
 - a. How long have you held this position?
 - b. How long have you been working at Colchester Council?
- 2. When the council was determining its sustainability strategy, what made the Environmental Sustainability Strategy you adopted the most desirable? Why?
 - a. How was your strategy drafted?
 - i. Example: did you take input from the people who would lead the delivery of targets and actions to determine the content of the strategy, or did you partner with an external team/organisation, or take input from residents?
 - b. What are your opinions on the layout/ structure of your sustainability strategy?
 - i. Do you think changes could be made to improve the functionality of delivery of the sustainability strategy for the borough?
 - c. Did you consider any other approaches to your sustainability strategy such as using a formally endorsed and branded sustainability strategy? e.g. ISO 14001/EMAS, One Planet Living.
 - i. What do you believe are the benefits and downfalls to having a formally endorsed and branded strategy over using a non-endorsed and branded strategy?

Structure of Strategy:

- 3. Which aspects of sustainability were most important when developing a sustainability strategy? (Environment, social justice or economy)? Why is that?
- 4. What do you consider to be the main factors which limit the council's implementation of sustainability?(Example: conflicting priorities, lack of management support, lack of money/resources, other?)
- 5. What do you consider to be the main driving factors for the implementation of

sustainability in the council? (Example: personal interest of residents, staff and elected members, legislation, striving to be a leading sustainability, other?)

a. If you are striving to become a leader in sustainability, having developed your own unique strategy, how do you prove that you are a competitive leader in sustainability?

Targets:

- 6. What sustainability targets do you believe are most important to your council? Which are least important? Why is this?
 - a. Is there anything you believe is missing from your current strategy?
 - b. Does the council believe any targets are unnecessary, redundant, or unattainable?
- 7. Are there any common factors which contribute to the successful achievement of your Environmental Sustainability Strategy targets?
 - a. Can you provide some examples?
 - b. What specific types of benchmarking techniques are used to measure the successful targets?
- 8. Which targets from your Environmental Sustainability Strategy has the council struggled with?
 - a. What issues have you encountered?
 - b. What specific types of benchmarking techniques are used to measure the struggling targets?

Governance Structure:

- 9. What governance structure is in place for the management of the Environmental Sustainability Strategy at Colchester?
 - a. Who oversees delivery of each principle?
 - b. Are the targets monitored internally and/or externally (council staff, community, company)?
 - i. Who reviews the progress on the targets?
 - c. Who reviews the progress of the strategy as a whole?

- To whom do you report this to? (e.g. public, internal management group)
- d. What resources are available to implement the strategy? (staff, money, volunteers and community partners)
- 10. How often do you report your progress? (annually, semi-annually, etc?)
 - a. Are you facing any challenges in the ways you report certain targets?
 - b. What is the preferable way to report progress against your targets?
 (qualitative vs quantitative)
- 11. What does your senior management consider success to look like? (Example: high efforts made, reaching targets, community involvement, etc).

Opinions, Questions, Future Plans:

- 12. If you did not already have a strategy in place, would there still be alternative frameworks or strategies that you would be following?
- 13. Can you tell us a bit about your experience of using your Environmental Sustainability Strategy and what would consider to be its strengths and weaknesses?
 - a. Do you think this strategy is working effectively for Colchester?
 - i. Why do you think this strategy either works or doesn't work for Colchester?
 - b. What are your biggest concerns about this strategy?
 - c. What are the most beneficial factors of this strategy?
 - d. Any additional opinions on your strategy?
- 14. What action plans do you have for the future?
- 15. Do you know of any other boroughs or cities that we should research or interview about this topic?
- 16. What advice would you give to others formulating or evaluating a strategy for sustainability?
- 17. Are there any documents that you suggest we review for Colchester other than:
 - a. Carbon management plan
 - Environmental sustainability strategy

- c. Climate local action plan and progress report
- d. Home energy conservation act
- e. Greenhouse gas report

Script for Islington

Interview Questions:

- 1. What is your role with Islington?
 - a. How long have you held this position?
 - b. How long have you been with [organization]?
- 2. Many boroughs and cities choose to use sustainability frameworks or strategies. Why did Islington choose to have no overarching sustainability plan?
 - a. Did you ever consider a sustainability strategy/plan?
 - b. Do you feel it is more useful to not have an overarching plan?
- 3. What do you consider to be the main driving factors for the implementation of sustainability in the council/staff? (Example: personal interest of residents, personal interest of council, other?)
- 4. What is the organizational management of sustainability in Islington?
 - a. What influences the development of the policies?
 - b. Who carries out these policies or ensures they are followed?
 - c. Do you keep track of/report on sustainability progress? and if so:
 - i. How often do you report your progress? (annually, semi-annually, etc?)

 To whom do you report?
 - 1. What challenges are you having in the ways you report certain aspects?
- 5. What do you consider to be the main limiting factors for your implementation of sustainability? (Example: cost, human resources?)
- What does your senior management consider success? (Example: high efforts made, reaching targets, community involvement, etc)
- 7. What action plans do you have for the future?
- 8. As the Sutton Council is evaluating their sustainability framework, is there any advice you would like to give?

You have these plans with policies. Who develops that policy, who carries it out, and do you keep track of progress at all? If so, how?

1. How is each plan carried out

Script for Manchester

- What is your involvement with the Manchester Strategy?
 - a. How long have you held this position?
 - b. How long have you been working with Manchester?
- 2. Having independently developed a framework, how does Manchester demonstrate itself as a competitive leader in sustainability?
- 3. What do you consider to be the main limiting factors for your implementation of sustainability? (Example: cost, human resources?)
- 4. What do you consider to be the main driving factors for the implementation of sustainability in the council/staff? (Example: personal interest of residents, personal interest of council, other?)
- 5. What sustainability targets do you believe are most important to your city? Which are less important?
 - a. Is there anything you believe is missing from your current framework? Does the council believe any targets are unnecessary, redundant, or unattainable?
- 6. What are the key targets you choose to focus on?
 - a. Why did you choose these targets?
- 7. What factors contribute to the successful achievement of a target?
 - a. Can you give some examples?
 - b. How do you benchmark these targets?
- 8. What sustainability targets has your team struggled with?
 - a. What issues have you encountered?
 - b. What benchmarking techniques are used for these issues?
- 9. What is the organizational management of your sustainability department?
 - a. Who oversees delivery of each area?
 - b. Are the targets monitored internally or externally (council staff, community, company)? Who reviews the progress / framework?
 - What resources are available to implement the framework? (staff, money, volunteers and community partners)
- 10. How often do you report your progress? (annually, semi-annually, etc?) To whom do you report?

- a. What challenges are you having in the ways you report certain targets?
- b. What is the preferable way to report data for targets (qualitative vs quantitative)
- 11. What does your senior management consider success? (Example: high efforts made, reaching targets, community involvement, etc)
- 12. What action plans do you have for the future?
- 13. Do you know of any other boroughs or cities that we should interview on these topics?
- 14. What advice would you give to others formulating or evaluating a framework for sustainability?
- 15. Are there any documents that you suggest we read?

Sutton's Sustainability Manager Interview

- We understand that you are attempting to become the most sustainable borough in London; what is the scope for the ideal sustainability framework?*clarify what this means using UN as an example*
 - a. What are the main drivers for sustainability in Sutton?
 - b. What resources are available to implement the framework?
 - i. What did you hope to accomplish by having WPI students assist you with this project?
 - 1. Is there anybody else working on the same thing?
 - c. Which pillar(s) of sustainability are most important to the council? (Environment, social justice or economy)?
 - d. What specific areas of sustainability would the council like to focus on (renewable energy, green procurement, social equality etc)? why?
- 2. Why did Sutton initially choose the One Planet Living framework?
 - a. Is it important to be a part of a greater sustainability community? i.e. is having a label like "One Planet Borough" important to the council?
 - b. How do the One Planet Sutton targets compare to the requirements dictated by One Planet Living/Bioregional? i.e. are all of your targets there to meet Bioregional's requirements, or are there some for your own?
 - c. How important is the "One Planet Living" label to the Sutton council members?
- 3. What has caused the council to reconsider your borough's sustainability framework?
 - a. What do you believe the One Planet Living framework is missing?
- 4. What sustainability targets do the council believe are most important to the borough?
 Follow up with a "why" question on each if not evident
 - i. For Councilors
 - ii. For Residents
 - iii. For council as a whole
 - b. What targets are less important to the borough?
- 5. How is the progress on the targets currently reported?
 - a. What issues are you having in the ways you report certain targets (i.e. qualitative

- targets vs. quantitative targets)?
- b. What is the preferable way to report data for targets (qualitative vs quantitative)?
 What do you see as the strengths and weaknesses of this reporting strategy?
- 6. Regardless of framework- what are the priority areas/key targets that the council would like to focus on?
- 7. To what extent have you worked with Bioregional?
 - a. As a One Planet Borough, what sort of contact is maintained with Bioregional?
 - b. Do you find Bioregional to be a valuable resource to the sustainability efforts of the borough?
- 8. What are some of your other Sustainability Commitments or policies the council have or would want to have even if it didn't have OPS
- 9. Are there any additional elements you feel are important while considering other sustainability frameworks?

Script for Interviews with Sutton Council Staff and other Key Informants in the Borough

Interview Questions:

- What do you do here with the Sutton council?
 - a. How long have you held this position?
 - b. How long have you been with Sutton?
- 2. In your role as [role], what tools does One Planet Sutton offer which help accomplish your tasks?
 - a. How well do you believe Sutton's approach to your target area is performing to date?
- 3. Do you feel that One Planet Sutton is limiting in the scope and focus of your targets?
- 4. We see from the 2015-16 sustainability report that you have met [a few:several] of your targets:
 - a. Which factors in particular do you think lead to the success of these targets?
 - b. Why do you believe these targets were achievable?
- 5. Also seen in the 2015-16 sustainability report are [a few; several] sustainability targets/commitments you are having trouble reaching:
 - a. Why do you think the council are having trouble reaching them?
 - b. What do you think the council needs in order to reach these targets/commitments?
- 6. Do you have ideas for any changes or improvements that you would like to see in a future sustainability strategy?
 - a. For your specific area, what sustainability targets do you think the council should adopt or leave behind? Why?
 - b. Are the 2025 OPS targets still relevant, or should there be something else?
- 7. Do you possibly know of anyone else in Sutton or other boroughs that we should interview on these topics?

Appendix 5: Government Policy Summarisation Table

Strategy	Document Name	Policies Outlined in Document
Air Quality	Clearing the Air	1. Particulate Matter (PM10) -Limit value of 50, per 24 hours, with no more than 35 permitted exceedences each yearLimit value of 40, per year. 2. Nitrogen Dioxide (NO2) -Limit value of 200, per year, with no more than 18 permitted exceedences each yearLimit value of 40, per year. 3. Fine Particles (PM2.5) -Limit value of 25, per annual meanStage 2 indicative limit value of 20, per annual mean. Begins on 1 January 2020Exposure concentration obligation of 20, per 3 year average exposure indicator (AEI)Exposure reduction target relative to the 2010 AEI (0% to 20% reduction), per 3 year average exposure indicator (AEI). Begins in 2020.
Water	Securing London's water Future	N/A
Waste	Mayor's Municipal Waste Management Strategy	1. To achieve zero municipal waste direct to landfill by 2025. 2. To reduce the amount of household waste produced form 970kg per household in 2009/10 to 790 kg per household by 2031. This is equivalent to a 20% reduction per household. 3. To increase London's capacity to reuse or repair municipal waste from approximately 6,000 tonnes a year in 2008 to 20,000 tonnes a year in 2015 and 30,000 tonnes a year in 2031. 4. To recycle or compost at least 45% of municipal waste by 2015, 50% by 2020 and 60% by 2031. 5. To cut London's greenhouse gas emissions through the management of London's municiple waste, achieving annual greenhouse gas emissions savings of approximately: -545,000 tonnes of CO2eq in 2015 -770,000 tonnes of CO2eq in 2020 -One million tonnes of CO2eq in 2031 6. To generate as much energy as practicable from London's organic and non-recycled waste in a way that is no more polluting in carbon terms than the energy source it is replacing. This is estimated to be possible for about 40% of London's municipal waste after recycling or composting targets are achieved by 2031
	Mayor's Business Waste Management Strategy	1. Achieve 70% reuse, recycling and composting of C&I waste by 2020, maintaining these levels to 2031. 2. Achieve 95% reuse, recycling and composting of CDE waste by 2020, maintaining these levels to 2031.
Climate Change	Managing Risks and Increasing Resilience Delivering London's Energy Future	NVA 1. 2015- 20% target CO2 emissions reduction on 1990 levels 2. 2020- 40% target CO2 emissions reduction on 1990 levels 3. 2025- 60% target CO2 emissions reduction on 1990 levels 4. 2050- 80% target CO2 emissions reduction on 1990 levels
Green Spaces and Biodiversity	Connecting with London's Nature	N/A
	All London Green Grid	NA.
Noise	Sounder City	N/A