

**What Makes Cities More Environmentally Sustainable: a
Comparative Study of York and Bristol**

Graham Gill

Environmental Department, University of York
Date: June 2018

1. Introduction

Climate change is the most considerable environmental threat humanity has ever faced. Despite occupying just 2 percent of land, as hubs of human activity, cities are directly and indirectly contributing up to 70 percent of global carbon emissions. Furthermore, the portion of the world's population who reside in urban areas is predicted to increase from the current 55 percent to 68 percent by 2050. Therefore, understanding how to reduce emissions from cities is of great importance. Additionally, cities are often on the forefront of the effects of climate change – many being on major rivers or in coastal regions and at risk of flooding – and are playing an increasing role in action against climate change. This is evidenced by their visibility at the COP21 Paris climate summit where Bristol, as the European Green Capital 2015, featured prominently. At COP21, cities were thought to have been integral in setting emission targets and, with the establishment of city networks such as the C40, are said to be ever more important in fulfilling the role left by national government inaction on climate change.

Despite the threat posed, climate change is only one aspect of the environment that also includes elements such as pollution and resource use, all of which are under increasing pressure from human activities. Since the Brundtland report in 1987, the environment has been considered through its interaction with the social and economic pillars in achieving sustainable outcomes. Therefore, to consider environmentally sustainable outcomes on a city-scale, in addition to low-carbon outcomes, the interaction between the three pillars must be considered. However, the extent to which a city can dictate aspects related to the three pillars is partly dependent on external factors, such as the central government of the country in which the city resides. For example, the economic constraints that have been placed on local authorities in the United Kingdom through austerity imposed by the Conservative Government since their election in 2010 which, incidentally, also has a detrimental effect on the social and environmental pillars. The environmental pillar of sustainability, along with the social pillar, is often considered to have less emphasis placed upon it than the economic pillar. Therefore, given the

significance of the environment encompassing climate change, understanding what makes cities more environmentally sustainable is of the utmost importance.

1.1. Study aims

The aim of this study is to compare York with a high environmental performer to uncover the characteristics in each city that affects environmental performance. However, it is unrealistic to isolate the environment from social and economic aspects. Therefore, this study encapsulated all three, in doing so looked to understand the interactions between the three pillars of sustainability and how they affect environmental performance. As the focus of this study was on the environmental aspect of sustainability, the comparative city was Bristol: as the European Green Capital of 2015, Bristol has excellent environmental credentials with an aspiration to become a “low carbon city with a high quality of life”. Given the ambiguity of the use of indicators in urban sustainability analysis, a sub-aim was to gauge the extent to which their inclusion in a study such as this is beneficial. These aims were achieved by conducting semi-structured interviews with policy-makers and key stakeholders in both cities. The following section outlines the methodology used to collect and analyse the data for this study. Then, pertinent background information is given for both cities, before presenting the research findings. Finally, the implications for these research findings for environmental sustainability in their respective city shall be discussed.

2. Research Methodology

25 semi-structured in-depth interviews (lasting on average one hour) were conducted in between June and September 2017 with policy-makers and key stakeholders. In total 17 interviews were conducted in York, all of which were face-to-face, and 8 were conducted in Bristol, all of which were either over the telephone or on Skype. Interviews were recorded using a digital recording device, transcribed verbatim and uploaded into NVivo 11 qualitative analysis software.

The analysis method was based on the Grounded Theory approach: an inductive method in which there is no existing hypothesis against which to examine theory, rather theory being generated through observing phenomenon grounded in the data. Therefore, transcripts were analysed thematically for the reasons behind environmental sustainability (or lack thereof) performance. Memos were written on these groupings, recording notes and comments, which were then grouped together into sub-sections of wider themes based on categories that emerged from the data. Conceptual maps were used to depict the relationships between the sub-sections to establish a natural narrative which could then be used in reporting the findings. After the data was analysed, relevant policy documents and academic literature were sought to aid in understanding and describing phenomenon.

3. Background Information on York and Bristol

Whilst the boundaries of York are well defined by its outer ring road, what constitutes Bristol conversely, is ambiguous. Bristol has expanded beyond the boundaries of the city, mainly into South Gloucestershire. However, the city of Bristol is technically only within these boundaries. Accounting for the trans boundary nature, this built up area is called the Bristol Urban Area and has a total population of 617,280. The population of the travel-to-work area for Bristol is 983,860. York may be perceived to be at the centre of its own travel-to-work area, notably from North and East Yorkshire. However, it could be argued that York is itself in the travel-to-work area of Leeds. York and Bristol also have very different histories, as explored in Table 2.

Table 2 – Pertinent backgrounds for York and Bristol

	York	Bristol
Population	198,000	428,200
Key Characteristics	York has a historic core that forms the basis for its tourist industry which contributes £564 million per year to the local economy and supports 19,000 jobs (Visit York, 2015). During the 19 th Century York did not experience the exponential growth of other cities which were based on heavy manufacturing, being based instead on a particularly strong Quaker presence, and becoming a hub for the national railway network. Today, York's economy is based on tourism and the knowledge-based industries including healthcare, insurance, creative industries and biosciences.	A major slave-port in the 18 th century bringing back goods such as sugar and tobacco, upon which Bristol's industries were built. Bristol also had a Quaker presence; however, not to the extent of York. Today, Bristol's economy has transitioned towards the high-tech, creative media, electronics and aerospace industries. The city-centre docks have been redeveloped as centres of heritage and culture and the tourist industry within Bristol's Urban Area contributes £1.3 billion per year to the local economy and supports 27,000 jobs (Visit Bristol, 2018) Therefore, whilst not to a large extent, Bristol's per capita revenue from tourism is less than York's. Bristol held the European Green Capital award in 2015.

4. Research findings and discussion

Thematic analysis revealed that some themes were widespread in the data, whilst others were less so and only present in one or two interviews. Many themes were interconnected. Four wider themes emerged from data – Culture, Economics, Politics and Social – under which all sub-themes resided in at least one.

4.1. Culture

Culture was commonly referred to in both cities as having a large bearing on aspects of environmental sustainability through its wider influence on decisions taken within each city. However, there were stark contrasts in the reported cultures of the two cities. In

York it was felt that the culture was predominantly conservative in nature and averse to change. Interviewees attributed this desire for the status quo to many reasons. The most prevalent reason was the need to maintain the city's built heritage; creating a culture of preservation. Additionally, through providing the basis upon which York is such a pleasant place in which to live and the solid economic base that this affords the city, the city's built heritage was also thought to create a cultural lack of need for innovation within the city. York interviewees repeatedly mentioned that they felt York lacked a youthful vibrancy, that it was "dominated" (Johnny Hayes) by older people who chose to retire in York and did not desire change. That York had attracted a youthful project such as Spark, in which up-cycled shipping containers are being used as a street-food and start-up business hub, was generally thought of as being a refreshing change for the culture of the city.

In Bristol, although numerous interviewees discussed their own cultural conservatism which has, on occasion, negatively impacted and discouraged policies geared towards environmental sustainability, a predominant theme was cultural vibrancy within their city. On the impact this vibrant culture is having on sustainability Jim Longhurst states, "In our internal discussions about sustainability, we actually add another leg about culture". Interviewees could not attribute this vibrancy to anything specific. Ian Townsend speculated that Bristol's a little bit, "different", further commenting that there is, "a long history of partnership-working and environmental sustainability going back decades and a great deal of energy today", whilst James Cleeton referred to the culture as, "bohemian". Mark Leach speculated that the environmental sustainability culture may have reached a tipping point after which it gathered its own momentum and became the normative culture of the city. Students in Bristol were also generally thought to make a large contribution to this culture:

"we've got 50,000 students in the city, a lot of them come and stay, so inevitably we have a groundswell of younger people who are challenging or questioning; who are engaging in sustainability issues." (Martin Bigg)

Contrastingly, in York, students were not mentioned as making any significant contribution to the culture of the city. Furthermore, there were differing perceptions of graduate retention in both cities despite only an 11% difference (19% in York, 30% in Bristol): York interviewees generally felt graduates left their city whilst Bristol interviewees felt that many graduates remained in their city.

Interviewees in Bristol felt that, unlike the Northern and Midland core cities who identified themselves thusly, Bristol lacked an identity and did not have a means to sell itself on the global stage, such as a world-renowned football team. This was thought to be one of the primary motivations behind trying to achieve the European Green Capital award. Accordingly, Bristol was said to have been showcased to visiting delegations as part of the European Green Capital year's celebrations and at COP21 in Paris that year. Interviewees also felt that there were other motivations for trying to achieve the award: most notably to attract inward investment; additionally, to benchmark itself against other cities, for pride, and to encourage tourism.

Both cities were consistently said to possess very strong environmental strands – albeit very different in nature. These strands were believed to provide support for environmental sustainability enhancing policies in their respective cities, such as the cycling networks in both cities, in addition to the park & ride bus services in York and recycling in Bristol. In York, interviewees thought such strands to be more in pockets rather than widely dispersed. Although there was no consensus as to the reasons for this culture, interviewees attributed it to three potential contributors: the benevolent capitalism of the Quakers who, as discussed in Table 2, have had a large presence in York; the influence of the church, which has been prevalent in shaping York's past; and the educated nature of much of the employment within the city. These contributors may be combining to create and attract people who are more compassionate. Furthermore, these people were said to have the financial and social capital – the intrinsic capacity within which individuals and their social relationships can provide the means for community action capable of achieving shared objectives – to care for other people.

Perhaps the umbrella organisations that each local authority initially set up to galvanise support for environmental sustainability related activities in their cities – One Planet York (OPY) and Bristol Green Capital Partnership (BGCP) – epitomise the characteristics of these respective strands: OPY has a more voluntary aspect whilst BGCP is proportionately much larger and involves a greater business element.

4.2. Economics

The environmental sustainability culture appears to have penetrated deeper into the business ethos of Bristol in contrast to York where the environment does not appear to be part of business conversations. This is evidenced by the disparity in environmental, also social, considerations between the city's business strategies: Bristol's Corporate Strategy is very considerate of the wider environmental and societal benefits that businesses may bring whilst York's Economic Strategy is focussed on job creation.

Particularly striking about the Bristol business culture is the sheer number of third-sector and voluntary organisations that, according to Ian Townsend, as of August 2017 constitutes almost two-fifths of BGCP's 836 members. BGCP also contains 56% private companies who have all made a commitment to the environmental sustainability agenda. Of these private companies there are 5 Benefit Corporations who constitutionally align revenue generating interests with social, cultural and environmental interests. According to interviewees, a uniqueness of Bristol was the cultural ability to create and support these organisations. Additionally, numerous interviewees discussed initiatives that encourage and support environmentally and socially sustainable organisations, such as *The West of England Initiative* and *Low Carbon South West*. These organisations were also thought to create a feedback effect in that they would then attract more environmentally sustainable minded people who would then contribute to this culture further still. The degree to which this culture extends to all aspects of Bristol's business community, however, is debatable: numerous interviewees believe this culture to be merely the preserve of the third-sector and volunteer organizations, whilst a minority believe this extends as far as the larger private companies, such as Rolls Royce and Airbus.

In York, the loss of many of its large anchor employers such as Rowntree's, Terrys and the Carriage-works in the recent past was frequently commented upon as having a negative effect on the economy of the city. York was said to possess many small and medium sized enterprises (SMEs) that were thought to add resilience to the city's economy. Many of these SMEs were said to be in the tourism related industries. However, there were also said to be 250 SMEs in what was claimed to be York's fastest growing sector: the creative industries. In 2014, these companies provided the basis upon which York became one of only seven cities globally to be designated a UNESCO city for media arts. Despite this large number of SMEs, outside of the voluntary organisations discussed in OPY, there was no discussion of alternative business models within York. Therefore, given this contrast, Bristol's businesses may bring wider sustainability benefits to their communities that York's businesses often may not, such as social inclusivity or environmental sustainability. Perhaps this has been recognized in Bristol; reflected in the initiatives to encourage and support business.

The development of a low-carbon sector was discussed by interviewees in Bristol. However, perceptions were mixed regarding the success of this: Some interviewees believed the development of a low-carbon sector has been successful to a certain extent. Whilst others believed it has not been successful and that Bristol could be doing more to capitalise on this sector given the green credentials of the city. In York, there was little discussion around an existing low-carbon sector. However, numerous interviewees indicated they felt the city was ideally placed for such a sector given the high-tech industry already within York. Furthermore, interviewees felt York had potential to be a test-bed for innovative thinking and technologies, as expressed here by Alistair Boxall:

“One thing that I found working in the city is York is a really good place to try and do this type of stuff cos we're not too big. So, you've got a population of two hundred thousand. It is pretty much encompassed by the ring road. So, you're a quite compact city, you can begin to start using some really novel and innovative methods to make the city roads better. Whereas somewhere like London and Bristol are much bigger; it's more challenging.”

One area particularly where it was thought York would benefit greatly from innovative methods was in dealing with the city's transport problems. Such problems are expressed here by Heather Niven:

“York was a difficult city to develop as the original infrastructure stems from the way the Romans built the city i.e. the roads are designed for Roman chariots and so a lot of the city is listed and the roads are narrow and often cobbled. This is great for tourism, but less so for infrastructure and business development.”

Additionally, pollution from transport was thought to be combining with natural problems the city has in this regard to be contributing towards air quality problems: York sits within a vale, therefore there is less stirring of the air; additionally, the medieval nature of many of the buildings is thought to create a canonization effect, further reducing stirring of the air. Bristol was also said to suffer from air quality problems, which is thought to be due to some of the highest car ownership rates in the country, the city being in a valley and a motorway coming quite far into the city.

In York, issues associated with high office prices constricting business growth were raised by interviewees who felt that the city was losing office-space to the conversion to residential and tourist property. This was thought to be aided by the current Conservative Government removing the requirements to seek planning permission for the conversion between office and residential property. The driver for conversion was thought to be due to the high cost of housing – York has some of the highest average house prices in the North of England – and how lucrative the tourist industry is in the city. Furthermore, high office prices were said to be exacerbated by an inability to build new office-space in the centre due to limited space within York's historic core; where it was felt that most employers would like to locate themselves. Consequently, the lack of office-space was thought to place York in an inherently unsustainable economic situation in which the city is losing part of its employment base. The lack of office-space also has wider ramifications for the nature of employment in York, expressed here by Paul McCabe:

“One of our aims as a city is to attract higher value jobs, that’s not easy. In our Economic Strategy, for example, it is recognized that we need more high-grade office-space to attract companies into York and to invest here. It’s something we lack in the city centre, which is why when we lose office-space like the Aviva building, which is going to be a Malmaison hotel, the council expressed concerns as that was a building that could have been for a company that could bring higher-paid jobs.”

When the lack of office-space was considered in conjunction with the high house prices, it was felt that this could make it very difficult for businesses to recruit in York.

Both cities were said to be transitioning towards high-tech industry. There was speculation in each city that this transition is made easier by the absence of a history of heavy industry; a massively declined sector of the United Kingdom economy. Interviewees in Bristol often indicated the strength of their cities’ economic performance, notably citing that Bristol was economically the most successful of the United Kingdom’s ten core cities (the ten largest cities in the United Kingdom outside of London). In York, the transition to high-tech industry was thought to be faltering to a certain extent. This was, in part, believed to be because of a focus on tourism due to the strong economic base that it provides the city; reducing the need for high-tech industry. However, several interviewees identified York being on the edge of two Local Enterprise Partnerships (LEPs) – the means through which central government infrastructure funding is invested – as a source of the faltering transition. Interviewees felt this means York is not the subject of targeted funding. Incidentally, Bristol sits within a well-defined LEP.

4.3. Politics

A wider problem that York was perceived as possessing – and a further reason that was identified for the push for high-tech industry perhaps having lost momentum – is a political flux that was thought makes it difficult for City of York Council to offer a long-term environmental sustainability vision for the city. This was said to be due to the

voting patterns being quite balanced based on the geography of the city – Labour with the Green Party in the centre, Liberal Democrats in the suburbs and the Conservatives in the rural fringe. This had the implication that the party in control of the council may represent people who are very different to their electorate. It was also felt that the parliamentary seat dichotomy – Labour held York Central and Conservative held York Outer – reflected York’s place in the wider political geography, with Labour looking towards the West Yorkshire Leeds/Bradford conurbation and the Conservatives identifying more with rural North Yorkshire.

Several interviewees indicated that when the Labour party has been in control of City of York Council there had been quite progressive policies on environmental sustainability, such as the country’s first Low Emissions Strategy or the attempted closure of a city centre bridge to cars to help alleviate air quality problems. Several interviewees felt there lacked a joined-up strategy with the different institutions of the city and that there are many intelligent people within York who could help the local authority with the city’s “big wicked problems” (Heather Niven), such as an ageing population and transport. However, there was ambiguity as to whether this referred to the current council leadership or City of York Council in general. Irrespective of this ambiguity, the City of York Council Corporate Peer Challenges were cited as proof of the shifting political dynamics in the city. For instance, regarding leadership within the council, the 2013 Corporate Peer Challenge, of which Labour were the subject, states that, “The Leader and Chief Executive provide visible leadership and lead from the front, and their ambition for York is clearly recognised by partners and staff”. Conversely, the 2016 Corporate Challenge, of which the Conservatives/Liberal Democrats were the subject, states that, “Those holding leadership positions are not consistently and widely visible enough across the organisation and sometimes outside of it too.”.

This political flux is also believed to be the primary reason for York being one of the few areas in the country to not have a Local Plan. Various interviewees claimed this makes planning in the city more ad hoc and open to the market which, they said, was inclined

to build more profitable flats rather than the family homes the city needs. However, it was pointed out that planning applications are scrutinized and commented upon by the various departments within the council regardless of whether there is a Local Plan or not. Because of the voting patterns mentioned previously, a new Local Plan was acknowledged by Dave Merrett to be a “political football”. Parties in control of City of York Council were thought to be under pressure not to build on the draft green belt and, to varying degrees, had identified sites on which to build new houses outside of their constituencies so to not alienate their electorates.

The lack of a Local Plan was thought to be the primary reason for York having such a low housing stock growth; in turn contributing to the high house prices. However, there were noted to be other contributing factors such as a high reliance on the development of brownfield sites – which are expensive to build on due to access problems. Additionally, there was thought to be a constrained housing supply due to York being a very attractive place to live for wealthy retirees, professionals from a large radius and homeowners from the much more highly priced London. Furthermore, the University of York was said to have undertaken a major expansion without matching on-site student housing provision, whilst university cities such as York were seen to be particularly good buy-to-let investment opportunities. Concerns were voiced that the combination of many jobs being in the poorly paid tourist industry and the high house prices was inherently socially unsustainable. However, it was also identified that major expansion to the built environment contrasts with the way in which many within the city see York: as a small city based around a historic core with relatively easy access to its hinterland. Conversely, this view of York was thought by Dave Merrett to be an area of significant political difference within the city:

“Labour sided with the universities and local business and took a moderately expansionist view to foster better paid employment and more affordable housing. Whilst the Green Party, Liberal Democrats and Conservatives were opposed to expansion.”

Bristol City Council was commonly discussed as being one of the main factors in Bristol's drive for environmental, and social, sustainability. Bristol interviewees saw their council as linking the different institutions of the city well and adopting progressive policies, such as its support for BGCP or creating their own municipal waste and energy companies. The latter were said to be in response to austerity imposed by central government which was frequently thought of as having a detrimental effect on the city, here expressed by James Cleeton:

"I don't hear or see anything coming out of the city that's inspiring environmentally wise, but I'm sure it's the same everywhere, this whole drive for austerity is just strangling it. I mean, for example, a load of the parks aren't going to be maintained anymore, and some of the cycle routes aren't going to be maintained. It's because there's no money to do it so we're having to decide what we lose. It's not about deciding what we don't invest in that we want. It's about losing the money: the city's losing the capability to invest in what it's already got".

However, it was believed that Bristol joining the West of England Combined Authority with Bath & North-East Somerset and South Gloucestershire would lead to more funds for infrastructure. Additionally, interviewees believed this would lead to a more joined-up strategy for Bristol's travel-to-work area.

City of York Council were said to be responding to reduced budgets, resulting from austerity, by splitting and divesting some of its primary functions to run as stand-alone companies. However, austerity was also thought to have contributed towards the flagging nature of York's transition towards high-tech industry, the reasons for which are articulated here by Simon Parker:

"local authorities don't have the resources to be major investors [anymore] – it has to come from local government – and the only sums of money that have been available since 2010 [and the introduction of austerity] have been through the LEPs."

Unlike City of York Council, politically, Bristol City Council was said to be relatively stable. However, with Bristol now electing to use the mayoral system as of 2012, they may also experience a political flux. This effect was alluded to by several interviewees who felt that the previous mayor, George Ferguson, had enacted progressive environmental sustainability policies but had lost re-election to Marvin Rees who claimed, for political reasons, that the strong environmental sustainability culture in the city was socially excluding. There were claims that economic status did dictate the extent to which one could engage with this culture. Conversely, attention was drawn to the inclusive benefits of the environmental sustainability culture, such as promoting reuse & repair, and community projects to support wildlife.

4.4. Social

Social inequality was often mentioned as a problem in Bristol. Although this was seen to be more a problem at the national level rather than anything specific to Bristol. It was also felt the social inequality may, at least in part, be due to some of the highest increases in house prices in the United Kingdom. The house price increases were thought to be contributed towards by people moving from London and the success of the city's transition to high-tech industries; the jobs for which were said to be, "an exclusive preserve of the 50% of people who go to university" (Jim Longhurst). Such sentiments were echoed within York:

"because we have such a cutting edge, digital arts, university, intelligence economy sector, sometimes we don't take care of the people left behind by all that. And that's a problem because then you get resentment, you get growing inequality, you get disenfranchisement, delusionment [sic], cynicism. You get rejection of the values of the economically active. You get cultural, as well as social and economic, division" (Richard Lane).

However, unlike in Bristol, it was felt that a strength that York possesses in reducing such social problems was its size; that it is a "human-scale city" (Andrew Waller) in which decisions that affect such things were taken relatively close and that the city was not large enough to create deep divisions between communities.

York was thought to benefit socially from the advantage that it possesses from being such a nice place in which to live. For instance, York was said to have particularly good GCSE results (Gov.uk, 2018b) which was repeatedly attributed to the city being able to attract a high class of professional, such as good quality teachers. Incidentally, GCSE results were also thought to have been aided by York having relatively low levels of social deprivation; therefore, schools do not have to focus on disadvantaged pupils. Bristol's GCSE results, conversely, were said to be relatively poor (Gov.uk, 2018b), for which no explanation was known. This 'nice place' effect in York, in combination with the caring cultural aspects of the city, were also said to be reflected in what were thought to be some of the highest volunteer rates in the country. Additionally, community participation, particularly in sports clubs, were thought to be high in York due to what was said to be a predominantly inclusive and close-knit nature within the city aided by there being large areas of grassland, or 'strays'. This 'nice place' effect in York may also have been utilised economically:

“York's aspiration was to be the knowledge economy satellite of Leeds [...] because we've got a big University here. Obviously, Leeds has got two very big universities, but actually York thought it would be a more attractive place to work.” (Simon Parker)

However, it was also commented that this image of York masked increasing social issues, such as domestic abuse, and that there were tensions between residents and the growing student population. Furthermore, York may be accused of exporting its social problems as, what was often referred to as very high employment levels was commented by some interviewees to be a “labour shortage” (Simon Parker). This was due to the previously mentioned combination of the low pay of tourism-related work and some of the highest house prices in the North of England pushing out people who cannot afford to live in the city.

4.5. Summation of environmental sustainability in York and Bristol

The reporting of the research findings and discussion are linear. The themes, however, are interconnected. Therefore, this section draws these themes together and discusses the interactions and the resulting consequences for environmental sustainability on a city level.

York's two largest challenges in being a more environmentally sustainable city are its political flux and heritage. Because of this flux there are large political risks to parties that seek to enact less salient environmental sustainability policies. When combined with the city's conservatism, York can lack ambition. The political flux also contributes to a lack of long-term vision; a symptom of this being the housing problem. Housing relates to environmental sustainability through its social and economic interactions within the city, which are more pressing matters for York. Furthermore, due to York's business culture and economic unsustainability, York's business focus is on job growth as opposed to the wider societal benefits that businesses can bring. Many of the positives that York possesses are due to its natural advantages. However, the lack of ambition and vision is preventing York from achieving its full potential: being a city rich in heritage does not mean that it cannot also have a strong environmental sustainability focus (Rostami et al., 2014).

Bristol is an example of what a city can achieve in terms of environmental sustainability in a country with a very centralized state whose current policies, at a national level, may be perceived as regressive (Lowndes & Gardner, 2016; Davies & Blanco, 2017). Additionally, whilst Bristol does have social problems, many of these may be inherent in large British cities. Bristol's pursuit of green capital – the environment as an asset, be that physically or embedded in urban cultures with wider consequences – may have elements of “urban boosterism”; a pursuit that may only be possible due to a long-term vision that comes from political stability. Therefore, the push for green capital may be an effort to remedy the need for identity having seen the makings of it from within its culture: a notably vibrant culture that is hard to define and account for but appears to

be bringing many sustainability related benefits to Bristol, as commented by James Cleeton, “what Bristol does well, is what its people do: there’s still that culture, that socio-cultural drive behind a desire for a really sustainable and green city”. However, whilst Bristol benefits economically from green capital, this pursuit of green capital is perhaps only a priority because Bristol is already economically successful.

6. List of interviewees

All interviewees listed have given their permission to be identifiable:

- Anna Bialkowska, Chair, Tang Hall Big Local
- Phil Bixby, York Environment Forum
- Professor Alistair Boxall, University of York
- Professor Martin Bigg, University of the West of England
- Dr Steve Cinderby, Senior Researcher, Stockholm Environment Institute, University of York
- James Cleeton, England Director South, Sustrans
- Councillor Johnny Hayes, Independent, City of York Council
- Katharine Knox, Independent Consultant
- Vicky Japes, Public Health Programme Manager, City of York Council
- Richard Lane, York Community Energy
- Mark Leach, Project Manager, Bristol City Council
- Kate Lock, York Environment Forum
- Professor Jim Longhurst, University of the West of England
- Rachael Maskell MP, Labour Co-operative, York Central
- Paul McCabe, Strategic Manager – Sustainability and Transformation, City of York Council
- Dave Merrett, Former Labour Councillor, City of York Council
- Heather Niven, Head of Science City York
- Professor Rich Pancost, University of Bristol
- Dr Simon Parker, University of York
- Sheridan Piggott, York Bike Belles

- Jane Stephenson, Business Development Director, Resource Futures
- Ian Townsend, Chief Executive, Bristol Green Capital Partnership
- Sarah Toy, Strategic Resilience Officer, Bristol City Council
- Councillor Andrew Waller, Liberal Democrats, City of York Council