# BPLN0039\_QMMZ4

*by* William Chantry

**Submission date:** 27-Aug-2022 12:40PM (UTC+0100)

**Submission ID:** 185471921

File name: BPLN0039\_QMMZ4\_3828312\_1844215703.docx (424.28K)

Word count: 16598 Character count: 96768



University College London
Faculty of the Built Environment
The Bartlett School of Planning

Power to the people? An investigation into the efficacy of BREEAM Communities in facilitating citizen participation for urban developments in the UK.

QMMZ4

Date: 24/08/2022

	Word count
Main body of dissertation	10991
Appendices	4472

Being a dissertation submitted to the faculty of The Built Environment as part of the requirements for the award of *MSc Sustainable Urbanism* at University College London:

I declare that this dissertation is entirely my own work and that ideas, data, and images, as well as direct quotations, drawn from elsewhere are identified and referenced.

### Acknowledgements

Many thanks to my supervisor, Dr Catalina Turcu, for her guidance. I would like to thank my interviewees; each provided a really valuable and interesting insight into the world of sustainability certification schemes. I am also ever grateful for the support of my friends and family.

### Contents

Abs	stract	5
1.	Introduction	6
2.	Unpacking participatory planning and sustainability certification schemes	8
	Participatory planning	8
	Sustainability certification schemes and BREEAM Communities	12
3.	Methodology	.15
	Quantitative analysis	16
	Semi-structured interviews	16
	Evaluating Chantry's (2022) heuristic	18
	Limitations	18
	Statement of research ethics	19
4.	The reality of citizen engagement in BREEAM Communities projects in the UK	.19
5.	The efficacy of citizen engagement in BREEAM Communities projects	.23
	Engagement quality according to Chantry's (2022) heuristic	24
	External factors	30
6.	How can the BREEAM Communities framework be adapted to increase the quality of the zen participation it facilitates?	
7.	Discussion: adapting Chantry's (2022) heuristic for a UK urban planning context	
8.	Conclusion	
	ferences	
	pendix	

### List of figures and tables

### Figures

1	Chantry's (2022) political spaces of citizen engagement heuristic	10
2	A summary of the criteria constituting the Governance category of BREEAM Communities	13
3	An indicative ranking of the BREEAM Communities citizen engagement initiatives on Chantry's (2022) political spaces of citizen engagement heuristic (indicated by blue circles)	28
1	The adapted political spaces of citizen engagement heuristic given findings from this research	36
ables		
1	BREEAM Communities certified projects and their characteristics	20
2	The BREEAM Communities projects assessed by the eight interviewees in this dissertation	2

#### **Abstract**

Incorporating citizen participation into urban planning is a continued struggle; more recently, this has been coupled with a push to enhance the sustainability of urban developments. Various sustainability certification schemes aim to help developers build to high sustainability standards, yet few have incorporated strong citizen participation requirements alongside. BREEAM Communities is one of the first to do so. This dissertation aims to utilise Chantry's (2022) political spaces of citizen engagement heuristic to assess the efficacy of such citizen engagement requirements in the BREEAM Communities framework. Findings from eight BREEAM Communities Assessors unveiled that the framework facilitates mixed levels of citizen engagement. In the realms of proposal formation and proposal implementation, BREEAM Communities has stringent requirements that have the potential to facilitate highquality engagement. However, the information provision and deliberation aspects of engagement were found to be poorly facilitated. This research therefore recommends including specific information provision and deliberation stipulations in the BREEAM Communities compliance notes. Chantry's (2022) heuristic was also evaluated; it was found that stakeholder attitudes to engagement could not be represented on the heuristic, yet it is important in influencing citizen engagement quality. Equally, a new political space of engagement timing was discovered. This, alongside smaller adjustments, has been added to an enhanced political spaces of citizen engagement heuristic. Findings concerning both BREEAM Communities and Chantry's (2022) heuristic can provide a productive foundation to push for more effective citizen participation, both in theory and in practice.

#### 1. Introduction

This study will explore how citizen participation has been incorporated into sustainability certification schemes, specifically the BREEAM Communities framework and its operation in the UK. In recent years, citizen participation has become an increasingly prominent concept for urban planners (Kamaci, 2014). Indeed, it has been recognised since the 1960s that citizens should have a voice in decisions about the development of the built environment (Davidoff, 1965). However, this has proved to be a challenging task, with much participatory planning being labelled as tokenistic, involving citizens only in trivial planning decisions (Innes and Booher, 2004; Arnstein, 1969). Still, the move to participatory planning has not been abandoned: innovative methods are being developed to help enhance the quality of participation (Evans-Cowley and Hollander, 2010; Radil and Anderson, 2019).

With the onset of the climate crisis, the sustainability agenda has also risen to the fore in planning. Whilst this has often referred only to environmental matters, sustainability has recently been broadened to incorporate economic and social elements (Giddings et al., 2002). These ideals have been utilised to create sustainability certification schemes, which encourage private sector developers to consider sustainability by rewarding developments with a certification for high sustainability standards (Turcu, 2018a). Schemes like BREEAM and LEED have experienced high uptake in the private sector, providing developers with another way to show their commitment to sustainability and add value to their development (Turcu, 2018a). Social sustainability criteria such as affordability and wellbeing have been incorporated into sustainability certification schemes, demanding that developers and planners address the basic demands of the community as well as the environment (Sullivan et al., 2014).

Alongside this has been a move towards creating neighbourhood-scale sustainability certification schemes, like LEED-ND and BREEAM Communities (Sharifi and Murayama, 2014; Berardi, 2013). Traditionally, schemes like BREEAM were made for commercial buildings (Turcu, 2018a). However, recognition has developed that sustainability can be more holistically assessed at the neighbourhood scale. Sharifi and Murayama (2014) identify that neighbourhood-scale assessment allows the evaluation of buildings as well as the 'spaces between them' and 'services that are provided', elements that are integral to social sustainability. Neighbourhood-scale certification schemes therefore provide an ideal platform to incorporate citizen participation into sustainability assessment, yet the inclusion of citizen

participation requirements in certification schemes has been minimal. BREEAM Communities is one of the first schemes to do this (Sullivan et al., 2014).

BREEAM Communities was developed by BRE (Building Research Establishment) in 2009 (since updated in 2012) as a neighbourhood sustainability certification scheme (BRE, 2012; Sharifi and Murayama, 2013; Ameen et al., 2015). The scheme therefore assesses large mixed-use and residential developments, across six themes: governance; social and economic wellbeing; resource and energy; land use and ecology; transport and movement. The scheme is voluntary, with developers accruing credits that add up to a rating, either Unclassified (<30), Pass (30-44), Good (45-54), Very Good (55-69), Excellent (70-84) or Outstanding (85+) (BRE, 2012). However, some credits are mandatory, meaning they are necessary to achieve to receive a classification. Two of the twelve mandatory credits relate to citizen engagement, demonstrating how the scheme tries to foreground this as a key sustainability issue. Currently, 28 projects have been officially certified with BREEAM Communities in the UK (GreenBook Live, n.d.).

This dissertation aims to investigate the efficacy of the BREEAM Communities certification scheme in facilitating citizen participation processes for urban developments in the UK. To help measure this, this dissertation uses Chantry's (2022) political spaces of citizen engagement heuristic, which enables one to rank citizen engagement according to seven 'political spaces', or factors, that influence its quality. This heuristic is one of the latest in a history of heuristics that scholars have produced to understand citizen engagement quality in a given project. In doing so, Chantry's (2022) political spaces of citizen engagement heuristic will also be evaluated.

Following this introduction, chapter two explores the relevant literature on participatory planning, certification schemes and BREEAM Communities, highlighting issues that have been previously identified in citizen participation and sustainability certification schemes, as well as uncovering gaps in the research. Chapter three then explains the methodological approach to this dissertation. Chapters four to seven present findings from such investigations, exploring the efficacy of the BREEAM Communities framework and examining Chantry's (2022) heuristic, before chapter eight concludes the research.

# 2. Unpacking participatory planning and sustainability certification schemes

#### Participatory planning

Planning is a highly political process that attempts to reconcile 'conflicts of interest over the use and development of land' (Adams, 1994:2). Given the political nature of the role, since the 1960s it has been suggested that citizens, meaning any individual related to a given place, should participate in planning, democratising the process (Kamaci, 2014). The school of thought to emerge from this was 'advocacy planning' (Davidoff, 1965; Kamaci, 2014), developed in the 1960s, where planners would use their role to negotiate on behalf of the citizen interest. In this system, citizens were not directly involved. This changed in the 1970s with the onset of Transactive Planning, which stipulated that in-person citizen participation should occur to include the citizen voice (Friedman, 1973). Much of present-day citizen participation in urban planning stems from Habermas' 'communicative rationality' concept, which has taken precedence since the 1980s (Kamaci, 2014). This theory states that, for high-quality citizen engagement to occur, all stakeholders should be treated equally, and sufficient time should be allocated to allow them to deliberate and reach a consensus. This concept has gained even more relevance as a response to the rise of the neoliberal political agenda, which aims to reduce democratisation through privileging private sector interests over that of the public (Rydin, 2021).

However, many scholars have critiqued communicative rationality for being overly idealistic, particularly in a neoliberal planning context where stakeholders are rarely given absolute freedom to contribute their ideas and debate (Purcell, 2009; Hillier, 2003; Parvin, 2018). Many are sceptical as to whether high-quality citizen participation can be achieved, with multiple scholars reporting problems with real-life engagement practices in a variety of planning contexts (Hillier, 2003; Callahan, 2007; McCann, 2001). In their investigations into how citizen inputs are utilised by planners in the planning process, Eriksson et al. (2022) emphasize how it is important *who* participates and *how* the participation occurs. These two concerns are the source of many critiques of citizen participation processes. First, concerning the 'who', Innes and Booher's (2004) influential critique of the US planning system highlights how consultation processes often fail to capture the sentiments of marginalised populations, as they are frequently dominated by already-privileged voices, like those with an extensive education or

high-powered jobs. Istenic and Kozina's (2019) research into participation practices across European cities reinforced this concern.

Another key issue highlighted by scholars concerns the extent to which citizens are involved in participation processes. Often, research has found that citizens are afforded little agency to make their own proposals (Callahan, 2007). This was the case for the redevelopment of Lexington, USA, where citizens were manipulated into considering only ideas within a narrow neoliberal perspective (McCann, 2001). Ultimately, the private-sector developer has control over whether citizen sentiments are implemented or not, which can severely limit the citizen impact on a project (McCann, 2001). Hansen and Falleth (2014) found that developers valued citizen participation much less than councillors or planners, often choosing to conduct consultations later in the development process when key decisions have already been made; this once again limits citizen input. Furthermore, Hansen and Falleth (2014) found that developers and planners often meet independently of citizens, progressing the project without the citizen voice. Instead, community views raised by citizens are framed as 'extended selfinterests' to devalue their importance (Hansen and Falleth, 2014:420). Turcu (2018b) explains why, particularly recently, community involvement has faced barriers to effective implementation; she emphasizes how recent movements towards sustainable planning have led to a neglect of the community voice, due to the belief that some community sentiments, such as the anti-development perspective, do not align with sustainability.

Even so, the push to increase citizen participation persists. Recently, digital participatory tools have been identified as holding the potential to enhance citizen participation (Evans-Cowley and Hollander, 2010; Radil and Anderson, 2019; Seltzer and Mahmoudi, 2012). In their evaluations of various web-based technologies for citizen participation, Evans-Cowley and Hollander (2010) and Kleinhans et al., (2015) both highlight how online methods have the potential to reach much greater numbers of participants. However, they also state that the technology can be exclusionary, as citizens can be unaware of how to use the required technology or lack access to the internet (Evans-Cowley and Hollander, 2010).

Meanwhile, scholars have been creating frameworks to accurately assess citizen engagement quality. Arnstein's (1969) ladder of citizen participation was the first of these, ranking citizen engagement according to nine levels: manipulation, therapy, informing, consultation, placation, partnership, delegated power and citizen control. In a recent iteration, Chantry (2022) has created the political spaces of citizen engagement heuristic; this splits citizen

engagement into seven 'political spaces', each integral to the overall quality of engagement and each able to afford citizen more or less control (see Figure 1). The heuristic was initially created for a smart city planning context; it is yet to be tested in a UK planning context, the aim of this dissertation.
10

Deliberation	+1	+2	+3	+4	+5
	Minimal	Limited	Considerable	Significant	Extensive
Proposal	time/space	time/space	time/space	time/space	time/space
	given to	given to	given to	given to	given to
	deliberate	deliberate	deliberate	deliberate	deliberate
Proposal formation	Citizens are participants, learners. No active input.	Citizens are feedback- givers to specific ideas	Citizens are vision-makers- no concrete proposals made	Citizens give proposals responding to specific prompts	Citizens autonomously give detailed proposals
Discourse production	+1 Discourse exclusively produced by stakeholder	+2 Discourse produced by external administrators with the stakeholder	+3 Discourse produced by stakeholder and citizens	+4 Discourse produced by external administrators	+5 Discourse produced by the external administrators and/or citizens
Proposal implementation	x0	x1	x2	x3	x4
	No citizen	Citizen	Some citizen	Multiple	Most original
	proposals are	proposals	proposals	original	proposals are

Figure 1: Chantry's (2022) political spaces of citizen engagement heuristic

#### Sustainability certification schemes and BREEAM Communities

Alongside the drive for citizen participation in urban planning has been a desire to incorporate sustainability into the planning agenda (Turcu, 2018b; Beatley, 1998). Sustainability is often defined as meeting 'the needs of the present without compromising the ability of future generations to meet their own needs' (WCED, 1987). One way in which sustainability has been incorporated into planning is through sustainability certification schemes (Turcu, 2018a).

These voluntary schemes allow private-sector developers to certify their developments as reaching a certain sustainability standard, increasing the attractiveness of their property (Sullivan et al., 2014). Schemes such as BREEAM and LEED have experienced high uptake, enhancing the incorporation of sustainability into the built environment (Turcu, 2018a) and they have been found to add a premium to building values, indicating that the market values such certifications (Addae-Dapaah and Jen Chieh, 2011). However, they have been critiqued by scholars for various reasons. Faulconbridge (2015:117) highlights how the schemes often promote the use of generic 'light green' sustainability strategies that fail to account for sustainability mechanisms that would suit the place-specific context. In their respective reviews of frameworks including BREEAM and LEED, Retzlaff (2009) and Spinks (2013) agree that certification schemes are limited in their efficacy due to their lack of flexibility to context.

Retzlaff (2009) and Spinks (2013) also highlight, alongside Lee (2012), how the schemes can be highly subjective; different frameworks may produce different scores for the same building, whilst different assessors may use the same framework for the same building and still produce a different score; this is primarily due to differences in assessor perceptions and the subjectiveness of the social sustainability assessment criteria. A socially-oriented criterion such as citizen engagement may be impacted by this.

Another key issue lies with the frameworks' vulnerability to 'game playing'. Since certification schemes are threshold-based, developers can manipulate their actions to limit the sustainability implementations they do. BREEAM certifications range from 'pass' to 'outstanding' (Turcu, 2018a). To achieve the maximum result with minimal costs, developers often aim for credits that are easy to implement at the expense of those with greater potential sustainability benefits (Spinks, 2013). Developers may also aim for the lowest necessary points to reach a threshold (Spinks, 2013). For example, they may aim for a 55 instead of a 65, as this is still within the bounds of 'Very Good' but would cost less to implement. Therefore the efficacy of certification

schemes for delivering sustainable development can be limited by a developer's own ambitions.

The majority of certification schemes have mirrored sustainability discourse, privileging environmental sustainability criteria such as energy use, pollution and biodiversity (Retzlaff, 2009; Turcu, 2018a). However, with increased attention turning towards social sustainability indicators, schemes have been developed which specifically require citizen participation. One such certification scheme is BREEAM Communities, the focus of this dissertation. BREEAM Communities incorporates sustainability classification scheme criteria in addition to citizen engagement requirements (Sullivan et al., 2014). The scheme assesses mixed-use and residential developments across six categories: governance; social and economic well-being; resources and energy; land use and ecology; transport and movement; innovation (Sullivan et al., 2014). Scheme assessment is split into three steps: step one is titled 'Establishing the principle of development', step two is 'Determining the layout of the development' and step three is 'Designing the details' (BRE, 2012). Each of the six categories contributes different weights to the overall classification; Governance holds a 9.3% weight (BRE, 2012). Within Governance there are four criteria, each containing its own individual weighting and credit value (as seen in Figure 2). GO01 Consultation plan is a mandatory criterion for step one of the assessment, and GO02 Consultation and engagement is a mandatory criterion for step two, meaning these have to be fulfilled to achieve any form of certification; GO03 and GO04 are voluntary credits (BRE, 2012; Sullivan et al., 2014).

Governance assessment issue	Weighting	Credits available	Value of each credit
GO 01 - Consultation plan	2.3%	1	2.3%
GO 02 - Consultation and engagement	3.5%	2	1.7%
GO 03 - Design review	2.3%	2	1.2%
GO 04 - Community management of facilities	1.2%	3	0.4%

Figure 2: A summary of the criteria constituting the Governance category of BREEAM Communities

GO01 aims to 'ensure the needs, ideas and knowledge of the community are used to improve the quality of stakeholder engagement, throughout the design, planning and construction process' (BRE, 2012). GO02 aims to 'ensure the needs, ideas and knowledge of the community

and key stakeholders are used to improve the quality and acceptability of the development throughout the design process' (BRE, 2012). GO03 aims to 'ensure that the masterplan's design is reviewed by the community and other key stakeholders, ensuring that it supports a vibrant, healthy, functional and inclusive development' (BRE, 2012). GO04 aims to 'support communities in active involvement in developing, managing and/or owning selected facilities' (BRE, 2012).

Much of the literature on BREEAM Communities is descriptive. Ameen et al. (2015) and Sullivan et al. (2014) compare BREEAM Communities to fellow neighbourhood-scale assessment schemes like LEED-ND, examining how they differ in terms of indicators and weightings. Kaur and Garg (2019) do the same, concluding that BREEAM Communities is more socially-oriented than the other existing schemes. Sharifi and Murayama (2015) extend this evaluation; their comparison of three different UK urban developments using three different assessment frameworks (BREEAM Communities, LEED-ND and CASBEE) indicated that BREEAM Communities was much more stringent on citizen engagement than the others. BREEAM Communities is therefore a good focal point for the research as its citizen engagement requirements are deemed industry-leading.

There has been limited critical comment regarding BREEAM Communities. Some scholars have agreed that the framework suffers from a lack of flexibility to place-specific context (Komeily and Srinivasan, 2015; Berardi, 2013; Sharifi and Murayama, 2013; 2015). All four papers have recommended using citizen engagement techniques to help specify the framework for specific locations. For example, local citizens could define their version of sustainability by choosing the criteria and the weightings assessed by the certification scheme (Komeily and Srinivasan, 2015; Sharifi and Murayama, 2013; 2015).

Whilst these are valuable ideas to consider, there is still no research evaluating citizen participation in BREEAM Communities for UK development projects. This is perhaps due to the infancy of the scheme, with only 28 projects being registered as complete on GreenBook Live (GreenBook Live, n.d.). The Greenbook Live database (Greenbook Live, n.d.) provides information on all of the BREEAM Communities projects in the UK officially certified by BRE. For each project, the database lists its name, the developer of the site, the rating that the certification achieved, the certification number, the BREEAM Communities assessor and the

address of the project (Greenbook live, n.d.). The database is updated daily, giving a robust understanding of current Communities-certified projects.

Oliver and Pearl (2018) have evaluated the framework, but on a project in Malmo, Sweden. They found that the scheme was an ineffective tool for citizen engagement, with developers conducting it too late in the design process meaning citizens had a minimal impact on the development. This dissertation aims to evaluate whether BREEAM Communities is similarly ineffective in a UK development context, and whether the framework could be enhanced. These aims will be achieved through interviewing BREEAM assessors who have worked on a range of UK projects, as will be further explained in the next chapter.

#### 3. Methodology

As demonstrated in the literature review, BREEAM Communities has been exposed to relatively little critical reflection. As yet, there has been even less comment on the way the framework seeks to incorporate citizen engagement. This dissertation aims to fill that gap, through a broad-scale quantitative analysis of UK BREEAM Communities certified projects and semi-structured interviews with UK-based BREEAM Communities assessors.

Five research objectives have been identified:

- Identify the varying characteristics of completed BREEAM Communities projects in the UK.
- Explore how citizen participation has been enacted across a range of BREEAM Communities-certified projects in the UK.
- Assess how effective the BREEAM Communities framework has been in producing high-quality citizen engagement across a range of certified projects in the UK, using Chantry's (2022) political spaces of citizen engagement heuristic.
- Explore how the BREEAM Communities framework could be adjusted to further enhance its facilitation of high-quality citizen engagement across UK urban developments.
- Discuss how Chantry's (2022) political spaces of citizen engagement heuristic could be adapted to better assess the quality of citizen engagement in UK urban planning.

#### Quantitative analysis

For this dissertation, the quantitative analysis entails a simple numerical analysis of the frequency and range of BREEAM Communities certification scores, a spatial comparison of certified projects and a comparison of the most common developers and assessors. The required data was gleaned from the GreenBook Live database, produced by BRE to document all 21 officially-certified BREEAM Communities projects (BRE, n.d.). A table (Table 1) could be developed from the GreenBook Live database, enabling a simple comparison between the projects and their various certification scores, locations, assessors and developers. This helped to clarify the projects that performed well on the certification scheme as well as understand which developers and assessors used the scheme.

This analysis developed a broad understanding of how BREEAM Communities operates in the UK, helping to identify the various characteristics of completed projects in the UK (research objective 1). This acts as the contextual foundation from which a more pointed analysis of citizen engagement within BREEAM Communities could be conducted.

#### Semi-structured interviews

Eight semi-structured interviews have been used to attend to research objectives two, three and four. This mode of data collection allows for a deep understanding of a stakeholders' perspective on a certain issue, in this case the BREEAM Communities assessors (Yamada et al., 2003). Registered BREEAM Communities assessors were deemed the most appropriate stakeholder group to target for interview due to their in-depth understanding of the framework's use in the projects they assess. They also possess a somewhat objective perspective on the project's citizen engagement quality and the efficacy of the framework as they have no immediate vested interest in the project's final classification. Regarding interviewee selection, BRE also produce a database of registered BREEAM Communities assessors on GreenBook Live, containing the names, companies and email addresses of all assessors - there were thirtyone in total. All thirty-one were contacted for interview, to maximise the possibility for a range of projects and citizen engagement experiences to be explored. Eight respondents agreed to an interview - respondents had all assessed at least one UK BREEAM Communities project, with some interviewees conducting multiple. This indeed enabled an exploration of projects with a range of classification scores, from a range of different locations, involving a range of privatesector developers and containing varied citizen engagement experiences.

Assessors were all interviewed over Microsoft Teams, which allowed participants the flexibility to interview at the most convenient location for them. Before the interview, alongside the information sheet and consent form, a document of guiding interview questions was sent to each interviewee. This meant they could start to consider what they knew about citizen participation and BREEAM Communities prior to the interview itself.

To ensure the interviews were as useful as possible, each of the pre-determined interview questions was tied to a research objective. Questions started broadly, before honing in on how citizen participation is incorporated and considering how the framework could be enhanced to better facilitate citizen engagement:

- 1. How have you used BREEAM Communities in your work?
- 2. How have you found your experience using BREEAM Communities?
- 3. From your understanding, how does BREEAM Communities encourage citizen participation to occur?
- 4. How did this manifest itself for the project(s) you worked on?
- 5. How effective do you perceive the BREEAM Communities method of encouraging citizen engagement to be?
- 6. What do you think are the biggest barriers to good quality citizen engagement in urban redevelopments?
- 7. Given this, how do you think BREEAM Communities could tackle these issues and be enhanced to increase the quality of citizen engagement in UK redevelopment projects?

Questions 1 to 4 attend to research objective 2, concerning how citizen engagement has been incorporated into BREEAM Communities. Question 5 directly references research objective 3, considering how effective these measures have been. Finally, questions 6 and 7 address research objective 4, prompting the interviewee to consider how BREEAM Communities matches up to the challenges of incorporating citizen engagement and how this could be improved.

However, these questions were only a guide. The interviews followed a semi-structured routine, with new questions forming based on the response and expertise of the interviewee in question (Longhurst, 2016). This allowed the interviewee to give information on the aspects of citizen participation and BREEAM Communities that they were most knowledgeable about, maximising the utility of the interview (Longhurst, 2016). Even so, to prevent interviews from

going off-topic, it was important to use the guiding interview questions to bring participants back to the objectives of the research.

To analyse the data, interviews were selectively transcribed. All interviews were played back, with sections relevant to the research objectives chosen for transcription. This ensured relevant data was highlighted and condensed without breaching time constraints. Relevant sections were then coded on the software Atlas.ti, which provides a platform to clearly order and compare different codes, drawing out patterns from the data (Paulus and Lester, 2015). Etic codes were generated from Chantry's (2022) political spaces of citizen engagement heuristic. This included 'information', 'consultation' and 'feedback'. Emic codes were also generated, stemming from findings in the data; for example 'developer attitude', 'assessor attitude' 'mandatory' and 'time'. The emic codes that were not already directly from Chantry's (2022) were deemed 'external' factors that were not represented on the scaffold yet found to be important in determining citizen engagement quality. This permitted a structured yet flexible approach to analysis, ensuring that factors affecting citizen engagement not picked up by Chantry's (2022) scaffold could be identified (Glaser, 2016).

#### Evaluating Chantry's (2022) heuristic

The above method helped to achieve objective five; by separating the emic and etic codes into those that conformed to the heuristic and those that did not, it was easy to identify the factors affecting citizen engagement that the heuristic had missed. It was then considered whether this could be incorporated into an adapted heuristic, or whether the factor did not fit the particular theoretical framing of 'political spaces of engagement' and instead could be considered a contextual factor.

#### <u>Limitations</u>

This methodological framework possesses limitations. First, the GreenBook Live database only contained projects that had been fully certified by BRE, not those that were currently in the process of gaining certification. Moreover, some projects have been listed twice (Greenbook live, n.d.), showing their 'interim' score for step one and their 'final' score for the full certification. This makes it hard to establish how many distinct projects have been certified. Equally, the database does not record projects that are in the process of gaining certification and also fails to record the date projects were certified. This meant the data about where

BREEAM Communities is being used and how successful different projects were was slightly outdated.

Due to the infancy of the certification scheme, there were only thirty-one registered BREEAM Communities assessors; eight of these responded, meaning that a limited number of perspectives could be collected and therefore not all experiences using BREEAM Communities to do citizen participation were included in the analysis. In light of these limitations, significant insight into the framework's operation across a range of UK projects was still gained, enabling a data analysis and findings that adequately met the research objectives.

#### Statement of research ethics

This research offers low ethical risk. All interview participants will be voluntarily involved; before their participation, interviewees were sent an information sheet explaining the purpose of the interview and an overview of the research aims, as well as a consent form that allows interviewees to give their informed consent to participation. Personal data was carefully stored throughout the dissertation process, before being permanently deleted after submission. Any personal information was omitted from the final dissertation, ensuring interviewees remained anonymous. This satisfies UCL's Data Protection Principles and Research Ethics Committee requirements.

# 4. The reality of citizen engagement in BREEAM Communities projects in the UK

This section explains the variety of UK development projects that have achieved a BREEAM Communities certification, before exploring how citizen engagement manifested across twelve projects assessed by eight assessor interviewees.

A total of twenty-one distinct projects have been certified under the BREEAM Communities framework since its update in 2012. This is a small number, particularly in comparison to BREEAM's building-scale certification schemes; for example, there have been 1,239 BREEAM New Construction residential properties certified in the UK (Greenbook Live, n.d.[b]). As seen in Table 1, the spatial distribution of projects across the UK is highly uneven. Ten out of twenty-one projects are based in Hampshire, whilst another four can be found in

London and two in Bristol. These are the most populous locations, leaving much of the North of England untouched by BREEAM Communities projects. The concentration of projects in Hampshire, and Eastleigh in particular, as well as Bristol, could be explained by their Local Authorities' respective decisions to make BREEAM Communities a mandatory part of the planning conditions for developments over a certain size (Assessor 2 and Assessor 5).

The distribution of certification scores is broad, with three projects receiving the highest accreditation of 'Outstanding', five receiving 'Excellent', two 'Very Good' and one 'Good' (Table 1). However, the most frequent accreditation score is '0% Pass', achieved by ten out of twenty-one projects. This is where a project has been certified to step one of the certification but is either ceasing to fully certify for stages two and three or still in the process of doing so (Assessor 6).

The certified developments have been categorised into either residential, mixed-use or commercial (see Table 1). The vast majority are either residential or mixed-use, with twelve and eight certified projects respectively. Both residential and mixed-use projects were able to score in the highest two certification categories ('Outstanding' and 'Excellent'). It is clear that BREEAM Communities certification can be sought by a range of different types of developer, yet most certified projects are led by private developers.

Table 1 (overleaf): BREEAM Communities certified projects and their characteristics

Name	Score	Type of development	Location	Developer
Ebury Bridge Renewal	91.1% Outstanding	Residential	Pimlico, London	Westminster City Council
Pylands Lane	89.1% Outstanding	Residential	Eastleigh, Hampshire	Ashill Group
Temple Farm	86.3% Outstanding	Mixed-use	Chelmsford, Essex	Watch Tower Bible and Tract Society of Britain
North Stoneham Park	75.9% Excellent	Mixed-use	Eastleigh, Hampshire	Highwood Land LLP
Boorley Green	74.6% Excellent	Mixed-use	Boorley Green, Hampshire	Linden Homes, Bovis Homes, Bloor Homes
The Pavillions, Land at Moorgreen Hospital	72.9% Excellent	Residential	Eastleigh, Hampshire	Barratt Homes
Pembers Hill Park	70.1% Excellent	Residential	Fair Oak, Hampshire	Drew Smith Homes, Galliford Try Partnerships
Crowdhill Green	70% Excellent	Residential	Fair Oak, Hampshire	Bloor Homes, Linden Homes
Worcester 6 Business Park	56.2% Very Good	Commercial	Worcestershire	Stoford Developments
BRE 100 Homes	55.9% Very Good	Residential	St Albans	Crest Nicholson
CastleWard	42.39% Good	Residential	Derby	Lovell Partnership Ltd.
One Horton Heath	0% Pass	Mixed-use	Eastleigh, Hampshire	Eastleigh Borough Council
Ravensbury	0% Pass	Residential	Morden, London	Clarion Housing Group
Aylesbury Estate	0% Pass	Residential	Southwark, London	Notting Hill Genesis
Former Brooks Laundry Site	0% Pass	Mixed-use	Bristol	Folland Limited
Uplands Farm Estate	0% Pass	Mixed-use	Botley, Hampshire	Hampshire County Council
Newton on Trent Garden Village	0% Pass	Mixed-use	Newton-on- Trent	B M Arden
Battersea Power Station	0% Pass	Mixed-use	Battersea, London	Battersea Project Land Company Ltd
Land off Woodside Avenue	0% Pass	Residential	Eastleigh, Hampshire	First Wessex Housing Association
Berry Farm	0% Pass	Residential	Bursledon, Hampshire	Barratt Homes
Land off New Fosseway Road	0% Pass	Residential	Bristol	Bristol City Council

Findings in this dissertation are taken from the experiences of eight BREEAM Communities assessors who worked on a total of twelve BREEAM Communities projects, as shown in Table 2. Whilst not an exhaustive list, the projects included in this analysis achieved a range of certification scores, providing a wide-ranging insight into how citizen engagement is employed using the BREEAM Communities framework. Some projects are not yet certified, so they have not been recorded on Greenbook Live and are not present in Table 1.

Table 2: The BREEAM Communities projects assessed by the eight interviewees in this dissertation

Project	Score
Pylands Lane	89.1% Outstanding
North Stoneham Park	75.9% Excellent
Boorley Green	74.6% Excellent
Pembers Hill Park	70.1% Excellent
Crowdhill Green	70% Excellent
Worcester 6 Business Park	56.2% Very Good
One Horton Heath	0% Pass
Battersea Power Station	0% Pass
Clarence Road, Bristol	N/A
Fishponds, Bristol	N/A
Bristol Zoo Gardens	N/A
Redcliff Quarter, Bristol	N/A

All twelve projects successfully employed some sort of citizen engagement initiative. Half of the projects employed all three steps of the BREEAM Communities framework, so these were assessed on their Consultation Plan (GO O1) and the actual Consultation and Engagement (GO O2) as part of mandatory requirements. The other six did not complete certification, yet were still assessed on their Consultation Plan (GO 01) as it is a mandatory requirement for Step 1 of the certification. The Consultation Plan (GO 01) outlines exactly how the citizen engagement will take place, including identifying the relevant members of the community and other stakeholders for consultation, exactly when different consultations will take place, what techniques will be used, how feedback will be dealt with and what major topics will be covered (BRE, 2012).

There was a significant overlap in the type of engagement techniques utilised across different projects. This resonates with Faulconbridge's (2015:117) stipulation that certification schemes often encourage generic 'light green' techniques to be used. Letter drops were commonly used to reach out to marginalised groups who would otherwise not hear about a project and its consultation events (Assessor 1 and Assessor 8). Some projects also utilised questionnaires delivered to local residents, containing information about the project with space to submit feedback for collection (Assessor 3 and Assessor 4). The in-person engagement events were defined differently by different assessors: as either charettes, workshops, meetings or consultations. However, each type of event contained a very similar set of activities. They often included a presentation about the project, created by the developer and delivered by an independent administrator from a PR company (Assessor 4; Assessor 6). There were also often display boards with site plans or potential designs for participants to look at (Assessor 8). After digesting this information, participants were commonly able to ask questions to developers, architects and other stakeholders like ecologists or transport planners in attendance - although it was common for only the developer and architect to be present (Assessor 6; Assessor 8). There would also be a verbal opportunity to submit feedback to the developer (Assessor 1; Assessor 2; Assessor 6; Assessor 8). These events were often open invites, relying on the community actively seeking to attend (Assessor 2).

As one interviewee (Assessor 6) highlighted, more recently there has been a push to utilise online participation techniques - two assessors described hosting online participatory consultations, where participants could give their opinions on a project through an interactive platform or live online event (Assessor 3 and Assessor 6). However, it was clear that in general, these events constituted a minority; in-person consultation events were much more frequently used.

# 5. The efficacy of citizen engagement in BREEAM Communities projects

As highlighted above, the landscape of citizen engagement in BREEAM Communities projects initially appears uniform, with many projects utilising the same techniques. However, when analysing the initiatives using Chantry's (2022) heuristic it became clear that there was a significant range in quality concerning differing techniques as well as how the same techniques

were employed in different ways. The range of heuristic scores across the different projects has been indicated in Figure 3 at the end of the following section. Insights from assessors also highlighted how there were factors outside the direct realm of citizen engagement that affected the citizen engagement quality in a project. These external factors will be explored below after examining the factors highlighted using Chantry's (2022) heuristic.

#### Engagement quality according to Chantry's (2022) heuristic

Citizen selection is the first political space of citizen engagement highlighted by Chantry (2022). It is integral to engagement quality as it determines whether a range of demographics is included in consultation (Innes and Booher, 2004; Istenic and Kozina, 2019; Chantry, 2022). Many of the BREEAM Communities projects discussed by the assessors employed a form of citizen self-selection, achieving three out of five points on Chantry's (2022) heuristic. Much of the engagement events took the format of town hall meetings, where participants could turn up on their own accord to learn about the project, ask questions and deliver their feedback (Assessor 1; Assessor 2; Assessor 4; Assessor 6; Assessor 8). This was often coupled with letter drops, which aimed to reach out to those marginalised groups and inform them of the different consultation events (Assessor 1; Assessor 8). This follows the BREEAM Communities technical manual which states, under the GO01 Consultation Plan, that developers must account for 'the approach that will be taken to target and provide for minority and 'hard to reach' groups' (BRE, 2012). Whilst this represents an active attempt to include a diverse range of voices, providing event information to as many people as possible, letter drops still rely on participants making an active choice to come to the engagement.

Assessor 2 highlighted a more proactive approach that could be employed. They discovered this when doing some separate work with the planning consultancy Kevin Murray Associates, based in Glasgow (KMA, n.d.). This approach involves "going out and meeting these groups" at their local places, bringing the consultation process to them, whether this is at a youth centre, a supermarket or a shopping complex (Assessor 2). This way, for community members to involve themselves they have to make less of an active effort. This has a higher chance of including marginalised groups that would not immediately seek out consultation.

Engagement design is the second political space of citizen engagement; it is important as it determines how the community can participate and the specific topics they can comment on (Chantry, 2022). The engagement initiatives in the BREEAM Communities projects were sometimes designed by independent facilitators, and required to be delivered independently (BRE, 2012). For example, Assessor 6 stated that their project's engagement was conducted by an independent PR firm. This meant that the developer was unable to directly limit participant input through the format of the engagement, say, by reducing the time allocated to feedback giving or avoiding talking about certain topics. BREEAM Communities compliance notes for GO01 Consultation Plan reinforce the idea that engagement design is well regulated in the framework. For example, the developer's Consultation Plan is required to highlight the 'points at which the community and other stakeholders can usefully contribute' as well as include 'information relating to their level of involvement' (BRE, 2012). The consultation is also required to cover certain themes, including 'impacts of the development upon the surrounding community' and 'design quality' (BRE, 2012). This meant that most engagement activities were designed so that the format of the engagement would facilitate citizens to contribute in at least some capacity.

However, information provision and deliberation, the third and fourth political spaces on Chantry's (2022) heuristic, present a less positive picture of the efficacy of BREEAM Communities in facilitating citizen engagement. Giving citizens access to impartial and plentiful information and giving them sufficient time to discuss ideas before proposing is essential to ensuring citizen engagement produces productive outcomes (Chantry, 2022). Most BREEAM Communities projects' engagements had information provision; often this was in the form of verbal presentations, large information boards in consultation spaces or letters delivered to citizens' houses (Assessor 1; Assessor 2; Assessor 4; Assessor 6; Assessor 8). However, multiple assessors indicated that the developer or those employed by the developer delivered presentations and produced the information (Assessor 6; Assessor 8). For example, Assessor 6 suggested that the design team would put together the presentation for citizens. Equally, some engagement formats provided very minimal information to citizens. As highlighted by Assessor 4, letters were delivered to citizens for their project, providing a space for them to write back with feedback. However, by nature of being a letter, very minimal information could be provided to citizens. Without sufficient prior knowledge of the project, it may have been hard for citizens receiving this letter to contribute (Chantry, 2022).

Similarly, these engagement activities give no space for citizens to discuss ideas with each other or the developers, limiting their ability to refine their ideas before thinking of proposals. This problem was aptly touched upon by Assessor 6:

"If someone has a point but perhaps isn't communicating it very well...you want to have the opinions but you want someone there with the technical know-how, with the evidence, with research to kind of guide them a little bit"

Even when there was a town hall meeting-type event, whereby in principle citizens can spend time asking questions to developers and speaking with each other, it was found that in many cases not all relevant project team members were present. Assessor 6 highlighted how in their project it was only the developer, architect and a transport consultant, and that it would have been useful to have included an ecologist to help answer citizen questions. Assessor 1 suggested that the presence of a local authority planner may have been useful, as they could have helped determine the feasibility of citizen requests alongside the developer in real-time. Instead, much of the conversation between developers and planners happened outside of the public eye. Assessor 8 discussed how the developer had a "private feedback session" where they discussed the development and what kind of implementations were feasible. This fragmentation of stakeholders means that citizens are not able to know immediately if their proposals would fit within planning requirements, and they would be unable to discuss with developers and planners concurrently to find ways to adjust proposals so they are more feasible. Across all projects discussed by assessors, information provision and deliberation ranked relatively poorly on Chantry's (2022) heuristic, multiple projects providing limited amounts of information that was developer-led, as well as limiting the time and ability for citizens to deliberate with a wide variety of project players.

Proposal formation, the fifth political space on Chantry's (2022) heuristic, represents the moment at which citizens give their ideas about a project to developers, arguably the principal concern of the engagement process. Most of the engagement initiatives explored lent themselves to levels two, three and four on Chantry's (2022) heuristic (see Figure 3). The Town Hall meeting-style events allowed citizens to respond, either broadly or specifically, to prompts from presentations and display boards, meanwhile questionnaires and letters delivered to citizens allowed for similar proposal making but without the prompts. Some assessors described 'workshops' (Assessor 3; Assessor 4), indicating that citizens had a more extensive

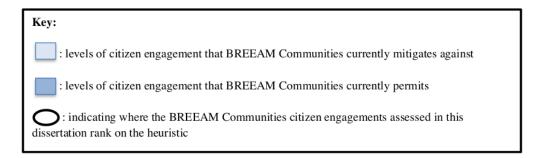
ability to work with stakeholders to produce more detailed proposals. It was difficult to determine whether citizens were afforded levels 2, 3 or 4 from the interviews as assessors often were not present at consultation events. However, it was clear that citizens were unable to make extensive, autonomous proposals (level 5 on the heuristic) as all mentioned events gave citizens the role of responding to developer information or pre-conceived ideas.

Analysing the citizen engagements through discourse production was outside the scope of this dissertation due to an unavailability of data on discourse from engagement events. Proposal implementation is the seventh and final political space on Chantry's (2022) heuristic. As elucidated in Chantry's (2022) heuristic, this is the most important aspect of engagement as, without implementation, the citizen voice is not turned into concrete actions. The BREEAM Communities technical manual has stringent requirements regarding this. As per GO02 Consultation and Engagement, the developer is required to provide consultees with a summary of the proposals they made, which of these were implemented and which were not deemed feasible, with explanations provided (BRE, 2012). At the least, this promotes high levels of transparency between the developer and citizens. Assessor 4 spoke of an example from the Battersea Power Station project where the developer clearly listened to citizen sentiments: from early on it was understood that citizens wanted something to address youth unemployment, so the developers established a youth training academy to give local young people access to skills training (Assessor 4). Still, other assessors were wary of the power developers hold, reinforcing McCann's (2001) research, even with the above stipulations. Assessor 1 was sceptical as to the developers' willingness to implement citizen proposals, suggesting that they would "have an answer for anything...even really reasonable requests". It would therefore appear that BREEAM Communities' requirements to justify why citizen proposals are implemented or not can still fail to prevent reasonable requests from being ignored.

The above findings are represented in Figure 3 below – the circles indicate the boundaries within which the different projects heuristic scores sat within. As demonstrated here, only the lowest forms of citizen selection, engagement design, proposal formation and proposal

implementation have been mitigated against. More could be done to push engagement scores for other political spaces higher on the heuristic.

Figure 3 (overleaf): An indicative ranking of the BREEAM Communities citizen engagement initiatives on Chantry's (2022) political spaces of citizen engagement heuristic (indicated by blue circles)



Citizen selection	+1 Selection by stakeholder	selection by stakeholder and external administrator	Citizen self- selection	+4 Selection by external administrator	+5 Random selection
Design of engagement content	+1 Designed exclusively by the stakeholder	Pesigned by stakeholder and independent administrators	Designed by independent administrators	H4 Designed by independent administrators, citizens consulted	+5 Design led by citizens
Information provision	Irrormation provided exclusively by the stakeholder	Mostly provided by stakeholder, some provided independer dy	+3 Mostly provided independently, some provided by stakeholder	+4 Provided exclusively by independent administrators	+5 Provided by independent administrators and citizens
	Manimal time given to information provision	+2 Limited time given to information provision	Considerable time given to information provision	+4 Substantial time given to information provision	+5 Extensive time given to information provision
Deliberation	Minimal time/space given to deliberate	Limited time/space given to deliberate	+3 Considerable time/space given to deliberate	+4 Significant time/space given to deliberate	+5 Extensive time/space given to deliberate
Proposal formation	+1 Citizens are participants, learners. No active input.	Caizens are feedback-givers to specific ideas	+3 Citizens are vision-makers- no concrete proposals made	Citizens give proposals responding to specific prompt.	+5 Citizens autonomously give detailed proposals
Discourse production	+1 Discourse exclusively produced by stakeholder	+2 Discourse produced by external administrators with the stakeholder	+3 Discourse produced by stakeholder and citizens	+4 Discourse produced by external administrators	+5 Discourse produced by the external administrators and/or citizens
Proposal implementation	x0 No citizen proposals are implemented, citizens are ignored	x1 Citizen proposals largely ignored, few proposals indirectly influence policy	Some citizen proposals indirectly influence decisions, few original proposals are implemented	Muniple original proposals are implemented, choices made by the stakeholder	x4 Most original proposals are implemented, citizens vote on which to administer

#### External factors

Chantry's (2022) heuristic was useful in assessing the in-engagement factors affecting citizen engagement quality in BREEAM Communities projects. However, the heuristic failed to help recognise external factors that influenced this. Interviews with assessors uncovered two primary externalities: stakeholder attitudes to engagement and engagement timing, both of which impacted the quality of citizen engagement across different projects.

Stakeholder attitudes concern that of both developers, BREEAM Communities assessors and the local authority. Assessor 3 highlighted how open-minded developers, with a genuine interest in delivering sustainability, made a large difference to the success of citizen engagement. In their project, Assessor 3 described how the developer had already completed "a lot of good base work", meaning it was easier for them to collect the required evidence for BREEAM Communities certification. Some developers find this evidence collection too costly and time-consuming, and therefore reduce the stringency of their citizen engagement plans (Assessor 8). Similarly, Assessor 4 stressed that if the BREEAM Communities framework was treated like a tickbox exercise by developers, it had the potential to be tokenistic as citizens' thoughts would not be comprehensively taken into account and engagements would be rushed. Assessor 2 builds on this point, suggesting that developers can sometimes try to reduce the volume of consultation to make it easier to sell the development:

"they may or may not want to do a more extensive consultation exercise [because] they don't want to stir up too much enthusiasm locally, in case they raise expectations and start being asked for things that they feel will make it too difficult to sell the site on to volume home builders"

Equally, Assessor 2 discussed how developers who had a long-term stake in the land they were developing were more likely to treat the citizen engagement elements with sincerity, as they had a vested interest in keeping the local community happy. Meanwhile, where developers could build on the site and then sell it, the above attitude was more common.

It was also discovered that the attitude of the assessor influenced the quality of citizen engagement. Assessor 1 made it clear that the assessor and the developer engage in a

negotiation at the start of the BREEAM Communities process, where they agree on the credits to go for and those to ignore. As such, the assessor can influence the extent to which developers conduct a thorough citizen engagement process; if they have a sufficient level of knowledge, they would be able to recommend comprehensive citizen engagement techniques to help guide the developer into conducting high-quality consultation. Assessor 2, the assessor with the most project experience, believes that assessors are not pushing developers hard enough. They state that developers "have to submit the plan to the assessor, so that's the only point that the assessor can say 'i don't think it's broad enough', 'I don't think you've considered these groups', 'I don't think you've identified the sorts of places where you're going to get the right kind of feedback from'". They can also influence the stated implementations that result from citizen consultation; Assessor 2 was able to intervene when a developer was being vague about bus provision:

"I think they were saying you know a bus could be provided...you have to say a bus will be provided, it is being provided...it's got to be definite because if it's not definite it's likely to be...dropped...you've got the volume home builders coming in and if they can get out of doing something they'll get out of doing something"

The attitude of the local authority can also bear influence on the quality (or presence) of citizen engagement. As seen in Table 1, many of the certified BREEAM Communities projects were completed under the jurisdiction of Eastleigh borough council. Eastleigh made BREEAM Communities a planning requirement for all major developments (Assessor 2; Assessor 5), solidifying the presence of citizen engagement. Bristol also made BREEAM Communities compulsory, however, on multiple occasions they deemed the BREEAM Communities framework too arduous to complete for a medium-sized development, so they removed its requirement (Assessor 6). Therefore, even if the framework is a planning requirement, its implementation can rely on local authorities deeming it worthwhile on a project-by-project basis. In the first place, it is the positive attitude of the local authority that enforces BREEAM Communities as a planning requirement – this is also an example of the local authority attitude bearing an influence.

The second factor found to affect citizen engagement quality was engagement timing, something previously highlighted by Hansen and Falleth (2014) as an important factor in engagement quality. Whilst BREEAM Communities provides a guideline for sustainable

developments, all projects are also required to go through the UK planning system, which has its own requirements. The consultation process outlined by BREEAM Communities is flexible as to the time at which consultation should take place. Indeed, some assessors reported consultation processes happening before planning permission was granted whilst others reported this occurring after planning permission was granted (Assessor 1; Assessor 3; Assessor 6). Assessor 8 stated that consultation in their project occurred before it was submitted for planning approval. Assessor 4 had a similar experience, stating that their developer commenced engagement very early in the design process, citing this as a key reason for the success of the process. Meanwhile, Assessor 7 suggested that the citizen engagement in their project occurred 'too late in the process', subsequently harming the influence that citizens could have on the project. Assessor 1 also highlighted how hosting citizen engagement after already receiving planning permission presented problems, as "the developers might agree with something the citizens have said and if they take it to planning, because they have to make changes to something, the planners might not agree with it". This compliments Oliver and Pearl's (2018) research, which also indicated that BREEAM Communities permitting citizen engagement late in the development process reduced engagement quality.

# 6. How can the BREEAM Communities framework be adapted to increase the quality of the citizen participation it facilitates?

The analysis above presents the BREEAM Communities framework as having limited success in facilitating high-quality citizen engagement. Indeed, there are strong requirements for engagement design, proposal formation and proposal implementation. These aspects of citizen engagement performed better on Chantry's (2022) heuristic. However, the BREEAM Communities framework was less effective in facilitating high-quality citizen selection, information provision and deliberation. The suggested changes therefore focus on creating requirements for information provision, deliberation and the two newly discovered factors, stakeholder attitudes to engagement and engagement timing.

Information provision receives little attention in the BREEAM Communities technical manual. The only clear reference lies in Compliance Note 4 of GO 01 Consultation Plan, where it is stated that 'jargon is avoided for the consultation exercise' (BRE, 2012), implying information

provision should be accessible to all citizens. Whilst this is an important stipulation, the compliance notes should also make explicit that citizens should be given detailed information to inform their participation in the project; they should also require that this information is provided by independent advisors, whether this is academics, local historians or industry leaders, to ensure that citizens are informed from a more impartial perspective than that of the developer. Assessor 6 provides a valuable detail to this recommendation; that citizens should be able to see best practice examples from similar projects. These should be generated by independent industry experts, to limit developer bias.

There are even fewer references to deliberation in the BREEAM Communities technical manual. It corresponds that a significant proportion of the engagement techniques discussed by assessors failed to include any kind of deliberative space, include questionnaires and feedback letters. Whilst it is true that many events did have a deliberative element, primarily those in a town hall meeting format, multiple assessors highlighted how not all stakeholders were present (Assessor 1; Assessor 6). The BREEAM Communities framework should therefore stipulate that at least one citizen engagement technique involves extensive deliberation, whereby citizens can converse with each other as well as industry experts, developers and local authority planners at the same time. This would ensure citizens can contribute more considered, detailed proposals.

Citizen selection is more comprehensively covered by the BREEAM Communities framework. Developers are required to show how they would contact and include marginalised demographics. However, as foregrounded by Assessor 2, the guidelines could go even further in encouraging high-quality citizen selection, by stipulating that developers have to bring at least one engagement event to these marginalised groups. This could mean doing a workshop at a local youth centre, park or pub; it would mean citizens can more easily participate as they have to make less of an active decision to do so.

Furthermore, to address engagement timing, the framework should require that at least part of the citizen participation occurs before planning permission is granted. This would ensure that citizens are involved early in the design process, allowing them to have as much influence over the project as possible.

In terms of stakeholder attitude to engagement, assessor training should be altered in response to the finding that assessors can act as negotiators, persuading developers to implement more sustainability measures. Assessor training would emphasize the fact that assessors have a role to play in pushing the developer to consider more sustainable options. For citizen engagement, specific knowledge sharing on best-practice techniques should be shared, emphasizing the importance of stages such as information provision and deliberation.

As highlighted above, a clear barrier to higher-quality citizen engagement through this framework is that many developers are reluctant to spend money on sustainability measures like these at the scale that BREEAM Communities require (Assessor 5; Assessor 2). It is appreciated that the above alterations would mean BREEAM Communities cost more and take more time for developers. To mitigate against this, as was advocated by many of the interviewed Assessors, local authorities should make BREEAM Communities a compulsory requirement of their planning policies, forcing developers to consider citizen engagement and BREEAM Communities more seriously and incorporate certification cost into the project from the outset (Assessor 1; Assessor 2; Assessor 5).

# 7. Discussion: adapting Chantry's (2022) heuristic for a UK urban planning context

Chantry's (2022) heuristic provided a useful foundation on which to evaluate citizen participation in BREEAM Communities projects. Six of seven political spaces could be assessed, with discourse production only unable to be assessed due to a lack of data. This provided a strong understanding of which citizen engagement elements the BREEAM Communities framework facilitated well, and which were somewhat neglected. This research therefore reinforces Chantry's (2022) claims that these political spaces of citizen engagement are each intrinsic to determining citizen engagement quality.

However, various factors influencing citizen engagement were not able to be analysed using the framework. Stakeholder attitudes to citizen engagement are deemed a contextual factor that influences the political spaces on the citizen engagement heuristic. They are therefore highly important to consider but unable to be incorporated into the framework. They should be understood alongside the framework, to help understand the reasons why citizen engagement

reaches a certain level on the heuristic. However, engagement timing is a factor that can be deemed a political space of citizen engagement: decisions about when the engagement occurs influences the potential influence citizens can have. Engagement timing has been added to the heuristic (see Figure 4), as the first political space, representing how this political decision happens earliest in the engagement process. The lowest score is received for all engagements occurring after planning permission has been granted, when the majority of decisions have been made. Meanwhile, the highest score describes engagement that commences before planning permission and continues throughout the planning process.

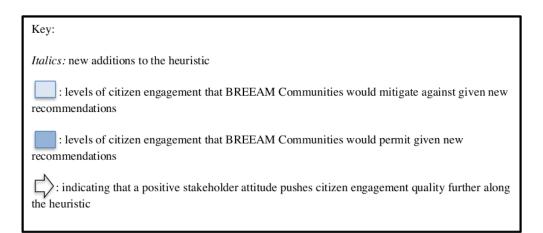
Two further adjustments have been made to the heuristic to fit a UK planning context, in light of this research. First, a new element of deliberation has been added to the heuristic; this assesses the extent to which citizens can deliberate with a range of stakeholders, including other citizens, developers and industry experts. From speaking to assessors, it was deemed that the opportunity to converse with others, especially industry experts who might be able to help articulate a citizen's point clearly, was important (Assessor 1; Assessor 6; Assessor 8).

Second, the citizen selection column has been reshuffled as findings could not be well mapped onto the previous heuristic. Citizen self-selection is now worth two points instead of three, as it was deemed that selection by the stakeholder that actively attempts to incorporate diverse voices, as is required in at least some of the engagement through BREEAM Communities, was more progressive. The new alignment also reflects the idea that proactively seeking citizens in their local spaces is a progressive form of citizen selection (highlighted by Assessor 2). This is now in the +4 box, replacing 'selection by external administrator' which was deemed redundant as progressive citizen selection from external administrators would still have to be randomised or proportional, meaning this can be encompassed by the +5 box ('random or demographically proportional selection'). All new additions to the heuristic are shown in italics in Figure 4.

Figure 4 also shows how the recommendations for BREEAM Communities in this dissertation would boost the quality of citizen engagement. As seen, major improvements would be made in engagement timing, information provision and deliberation, ensuring that citizen engagement received at least three out of five points in these political spaces. The arrow below

the heuristic indicates how a positive stakeholder attitude can elevate the citizen engagement quality across the heuristic; this highlights its role as an important contextual factor.

Figure 4 (overleaf): The adapted political spaces of citizen engagement heuristic given findings from this research



Engagement timing	+1 Engagement occurs after planning permission is granted, when most details have already been a greed		+3 Some engagement commences before planning permission is granted, citizens are able to influence some major details of project	+5 Engagement commences before planning permission is granted, continues throughout planning process		
Citizen selection	+I Selection by stakeholder, no attempt to attract diversity	+2 Citizen self- selection	+3  Selection by stakeholder or external administrator with attempts made to incorporate diverse voices	+4 Proactive inclusion of citizens via engagement at local public places	+5  Random or  demographically  proportional  selection	
Design of engagement content	+1 Designed exclusively by the stakeholder	+2 Designed by stakeholder and independent administrators	+3 Designed by independent administrators	+4 Designed by independent administrators, citizens consulted	+5 Design heavily influenced by citizens	
Information provision	+1 Information provided exclusively by the stakeholder	+2 Mostly provided by stakeholder, some provided independently	+3 Mostly provided independently, some provided by stakeholder	+4 Provided exclusively by independent administrators	+5 Provided by independent administrators and citizens	
	+1 Minimal time given to information provision	+2 Limited time given to information provision	+3  Considerable time given to information provision	+4 Substantial time given to information provision	+5 Extensive time given to information provision	
Deliberation	+1 Minimal time/space given to deliberate	+2 Limited time/space given to deliberate	+3  Considerable time/space given to deliberate	+4 Significant time/space given to deliberate	+5 Extensive time/space given to deliberate	
	+1 No fellow stakeholders present, citizens unable to discuss with others	+2 Citizens can discuss with other citizens, no developer present	+3 Citizens can discuss with other citizens and few stakeholders present	+4 Citizens can discuss with other citizens and multiple stakeholders	+5 Citizens can discuss with other citizens, multiple stakeholders and industry experts	
Proposal formation	+1 Citizens are participants, learners. No active input.	+2 Citizens are feedback-givers to specific ideas	+3 Citizens are vision-makers- no concrete proposals made	+4 Citizens give proposals responding to specific prompts	+5 Citizens autonomously give detailed proposals	
Discourse production	+1 Discourse exclusively produced by stakeholder	+2 Discourse produced by external administrators with the stakeholder	+3 Discourse produced by stakeholder and citizens	+4 Discourse produced by external administrators	+5 Discourse produced by the external administrators and/or citizens	
Proposal implementation	x0 No citizen proposals are implemented, citizens are ignored	x1 Citizen proposals largely ignored, few proposals indirectly influence policy	x2 Some citizen proposals indirectly influence decisions, few original proposals are implemented	x3 Multiple original proposals are implemented, choices made by the stakeholder	x4 Most original proposals are implemented, citizens vote on which to administer	

A positive stakeholder attitude

#### 8. Conclusion

This dissertation has aimed to explore the BREEAM Communities sustainability assessment framework, specifically how it incorporates citizen participation. It was discovered that the certification scheme has received relatively little attention from developers in comparison to other BREEAM certification schemes. Interviews with BREEAM Communities assessors uncovered that a limited selection of citizen engagement techniques was used across different projects. When assessing these against Chantry's (2022) political spaces of citizen engagement heuristic, BREEAM Communities was seen to have mixed success in facilitating high-quality citizen engagement initiatives.

As seen in the indicative ranking of BREEAM Communities citizen engagement initiatives (Figure 3), the certification scheme could facilitate relatively high-quality Proposal Formation and Proposal Implementation. Citizens were often able to give their suggestions about a project and developers were forced to justify why citizen suggestions had or had not been implemented. The political spaces of Information Provision and Deliberation performed particularly poorly, indicating that BREEAM Communities could do more to facilitate them. Some engagement techniques, like questionnaires, had no information provision attached, whilst others, like Town Hall meetings, had presentations but they delivered knowledge from a developer perspective. Deliberation was also limited, with many events only allowing citizens minimal time with each other, and potentially one developer representative, to discuss their ideas.

Alongside these findings from using Chantry's (2022) heuristic as an analytical tool, there were further findings that were not detected using the heuristic. It was discovered that the attitude of developers, BREEAM Communities assessors and the local authority have a distinct impact on the extent to which citizen engagement is successfully implemented. If the stakeholders are less concerned about this specific aspect, it will suffer as a result. Another influencing factor is the timing of the engagement process; if planning permission was already granted it was found to be harder for citizens' ideas to be embedded into project plans.

Engagement timing has been identified as within the theoretical framing of political spaces of citizen engagement. Accordingly, it has been incorporated into an adapted version of Chantry's

(2022) heuristic. Another facet has been added to the 'Deliberation' political space, measuring whether citizens can discuss ideas with multiple stakeholders or not. Citizen selection has also been adjusted to incorporate the proactive seeking of participants in the community.

It was determined that the stakeholder attitudes to citizen engagement, whilst highly important, did not conform to a new or existing political space. They are instead defined as contextual factors that influence the quality of citizen engagement in each political space. They are therefore highly important to understand, but not to be added to the enhanced political spaces of citizen engagement heuristic. This dissertation has aimed to bring the heuristic into relevance for a UK urban planning context; however, the heuristic is by no means complete and it should be continually adapted in further research.

To enhance BREEAM Communities, first it was suggested that an explicit requirement for extensive, impartial information provision should be inserted into the compliance notes. Second, that a similar stipulation for extensive, multi-stakeholder deliberation should be included. Third, to insert a requirement to have at least one event brought to citizens, instead of requiring them to actively attend. As well as this, it was suggested that assessor training should emphasize their job as negotiators with developers, in addition to teaching them more about how to facilitate high-quality citizen engagement initiatives. To combat developer lethargy, it was suggested that planning authorities make BREEAM Communities a mandatory planning requirement, forcing developers to incorporate its cost from the outset of the project. These measures address both contextual factors (stakeholder attitudes) affecting citizen engagement quality as well as the intrinsic factors, namely the political spaces of citizen engagement. Incorporating these changes would make BREEAM Communities a more useful tool, ensuring that citizens are empowered to participate in creating large-scale sustainable developments from an informed perspective.

#### References

- Adams, D. (1994). Urban Planning and the Development Process. Routledge: London.
- Addae-Dapaah, K. and S.J. Chieh, (2011). Green mark certification: does the market understand?. *Journal of Sustainable Real Estate*, *3*, 1, 162-191.
- Ameen, R.F.M., M. Mourshed and H. Li, (2015). A critical review of environmental assessment tools for sustainable urban design. *Environmental Impact Assessment Review*, 55, 110-125.
- Arnstein, S., (1969). A Ladder Of Citizen Participation. Journal of the American Institute of Planners, 35, 4, 216-224.
- Beatley, T. (1998). 'The Vision of Sustainable Communities' in Burby, R. (ed.) *Cooperating with Nature: Confronting Natural Hazards with Land-Use Planning for Sustainable Communities*. Washington DC: Joseph Henry Press.
- Berardi, U., (2013). Sustainability assessment of urban communities through rating systems. *Environment*, *development* and *sustainability*, *15*, 6, 1573-1591.
- BRE (2012). BREEAM Communities technical manual. BRE Group. Available at: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/viewer.html?pdfurl=https%3A%2F%2Fwww.breeam.com%2Fcommunitiesmanual%2Fcontent%2Fresources%2Fotherformats%2Foutput %2F10\_pdf%2F20\_a4\_pdf\_screen%2Fsd202\_breeam\_communities\_1.2\_screen.pdf&clen=6 102276&chunk=true [Accessed: 01/04/2022].
- Callahan, K., (2007). Citizen Participation: Models and Methods. *International Journal of Public Administration*, 30, 11, 1179-1196.
- Chantry, W. (2022) 'Built from the internet up': assessing citizen participation in smart city planning through the case study of Quayside, Toronto. *Geojournal*.
- Davidoff, P., (1965). Advocacy and pluralism in planning. *Journal of the American Institute of Planners*, 31, 4, 331-338.
- Eriksson, E., A. Fredriksson and J. Syssner, (2022). Opening the black box of participatory planning: a study of how planners handle citizens' input. *European Planning Studies*, *30*, 6, 994-1012.
- Evans-Cowley, J. and J. Hollander, (2010). The new generation of public participation: Internet-based participation tools. *Planning Practice & Research*, 25, 3, 397-408.

- Faulconbridge, J., (2015). Mobilising sustainable building assessment models: agents, strategies and local effects. *Area*, 47, 2, 116-123.
- Friedmann, J. (1973), 'The Transactive Style of Planning', in John Friedmann, Retracking America: A Theory of Transactive Planning, Doubleday: New York, 171-93.
- Giddings, B., B. Hopwood and G. O'Brien (2002). Environment, economy and society: fitting them together into sustainable development. *Sustainable development*, *10*, 4, 187-196.
- Glaser, B.G. (2016). Open coding descriptions. Grounded theory review, 15, 2, 108-110.
- Greenbook Live, (n.d.). Certified BREEAM Assessments. Available at:

  https://www.greenbooklive.com/search/buildingsearch.jsp?from=50&partid=10023&subsche
  meid=0&subsubschemeid=0&companyName=&developer=&productName=&buildingRatin
  g=&certNo=&certBody=&assessorAuditor=&countryId=56&addressPostcode=&standard=&
  notes=&projectType=Communities&id=202&results\_pp=50&pageNo=2 [Accessed:
  01/04/2022].
- Greenbook Live, (n.d.[b]). *Certified BREEAM Assessments*. [online] Available at: <a href="https://www.greenbooklive.com/search/scheme.jsp?id=202">https://www.greenbooklive.com/search/scheme.jsp?id=202</a> [Accessed: 24/08/22]
- Hanssen, G. and E. Falleth, (2014). Market-Oriented Urban Planning Constraining Citizen Participation. *Local Government Studies*, 40, 3, 403-428.
- Hillier, J., (2003). Agon'izing Over Consensus: Why Habermasian Ideals cannot be 'Real'. *Planning Theory*, 2, 1, 37-59.
- Innes, J. and D. Booher, (2004). Reframing public participation: strategies for the 21st century. *Planning Theory & Practice*, 5, 4, 419-436.
- Istenic, S. and J. Kozina, (2019). 'Participatory Planning in a Post-socialist Urban Context: Experience from Five Cities in Central and Eastern Europe'. In: Nared, J. and D. Bole, (eds.) *Participatory Research and Planning in Practice*. Springer: Cham, 41-60.
- Kamaci, E., (2014). A Novel Discussion on Urban Planning Practice: Citizen Participation. *International Journal of Architecture and Planning*, 2, 1, 1-19.
- Kaur, H. and P. Garg, (2019). Urban sustainability assessment tools: A review. *Journal of cleaner production*, 210, 146-158.
- Kleinhans, R., M. Van Ham and J. Evans-Cowley, (2015). Using social media and mobile technologies to foster engagement and self-organization in participatory urban planning and neighbourhood governance. *Planning practice & research*, 30, 3, 237-247.

- KMA, (n.d.). *Kevin Murray Associates*. [online] Available at: <a href="http://kevinmurrayassociates.com/">http://kevinmurrayassociates.com/</a> [Accessed: 24/08/22]
- Komeily, A. and R.S. Srinivasan, (2015). A need for balanced approach to neighborhood sustainability assessments: A critical review and analysis. Sustainable Cities and Society, 18, 32-43.
- Lee, W.L., (2012). Benchmarking energy use of building environmental assessment schemes. *Energy and Buildings*, 45, 326-334.
- Longhurst, R. (2016). Semi-Structured interviews and focus groups, in Clifford, N, M. Cope, T. Gillespie, S. French (eds) *Key Methods in Geography*, Sage publications: London.
- McCann, E., (2001). Collaborative Visioning or Urban Planning as Therapy? The Politics of Public-Private Policy Making. *The Professional Geographer*, 53, 2, 207-218.
- Oliver, A. and D.S. Pearl (2018). Rethinking sustainability frameworks in neighbourhood projects: a process-based approach. *Building Research & Information*, 46, 5, 513-527.
- Parvin, P., (2018). Democracy Without Participation: A New Politics for a Disengaged Era. *Res Publica*, 24, 1, 31-52.
- Paulus, T. and J. Lester, (2015). ATLAS.ti for conversation and discourse analysis studies. International Journal of Social Research Methodology, 19, 4, 405-428.
- Purcell, M., (2009). Resisting Neoliberalization: Communicative Planning or Counter-Hegemonic Movements? *Planning Theory*, 8, 2, 140-165.
- Radil, S. and M. Anderson, (2019). Rethinking PGIS: Participatory or (post) political GIS?. *Progress in Human Geography*, 43, 2, 195-213.
- Retzlaff, R., (2009). Green buildings and building assessment systems: A new area of interest for planners. *Journal of Planning Literature*, 24, 1, 3-21.
- Rydin, Y., (2021). Theory in planning research. Springer Nature.
- Seltzer, E. and D. Mahmoudi, (2012). Citizen participation, open innovation, and crowdsourcing: Challenges and opportunities for planning. *Journal of Planning Literature*, 28, 1, 3-18.
- Sharifi, A. and A. Murayama, (2013). A critical review of seven selected neighborhood sustainability assessment tools. *Environmental impact assessment review*, 38, 73-87.

- Sharifi, A. and A. Murayama, (2014). Neighbourhood sustainability assessment in action: Cross-evaluation of three assessment systems and their cases from the US, the UK, and Japan. *Building and Environment*, 72, 243-258.
- Sharifi, A. and A. Murayama, (2015). Viability of using global standards for neighbourhood sustainability assessment: insights from a comparative case study. *Journal of Environmental Planning and Management*, 58, 1, 1-23.
- Spinks, M., (2015). Understanding and actioning BRE environmental assessment method: a socio-technical approach. *Local Environment*, 20, 2, 131-148.
- Sullivan, LJ, Y. Rydin and C. Buchanan (2014) Neighbourhood sustainability frameworks a literature review. (USAR Working Papers 001). Centre for Urban Sustainability and Resilience (UCL): London, UK.
- Turcu, C., (2018a). Sustainability indicators and certification schemes for the built environment. In Bell, S and S. Morse (eds.) *Routledge Handbook of Sustainability Indicators*, 156-175. Abingdon: Routledge.
- Turcu, C., (2018b). 'Sustainable development and planning' in Ferm, J. and J. Tomaney (2018) *Planning Practice*. New York: Routledge. 189-202.
- WCED (1987). World commission on environment and development. *Our common future*, 17, 1, 1-91.

#### Appendix

Appendix A: Interviewee contact letter

Dear Ms X, if I may,

I hope this email finds you well. My name is X and I am writing to you as an MSc Sustainable Urbanism student at the UCL Bartlett Institute of Planning. I am currently undertaking my dissertation, which aims to investigate the efficacy of BREEAM Communities in facilitating high-quality citizen engagement for UK redevelopment projects.

As someone who has assessed multiple BREEAM Communities projects, your insights into the assessment scheme, and its focus on citizen engagement in particular, would be invaluable. I would be delighted if I could conduct a research interview with you in the coming weeks. It would be an informal, 30-minute video/phone interview, conducted by myself. Ideally this would be in June, but I can be flexible with exact dates and times.

The interview would start by discussing BREEAM Communities in general, before zooming in on citizen engagement. Specifically, we might discuss what citizen engagement demands BREEAM Communities places on developers, how such demands have been met/not met in the specific projects you assessed and whether the framework could improve the way it facilitates engagement. These topics are guides only - if there is a particular aspect that you feel more comfortable speaking about, the interview can be tailored towards this. If you agree to the interview, I will send over a list of guiding questions for you to look at beforehand.

Please let me know if you might be interested in participating in the project, or if you have any further questions.

I look forward to hearing from you soon.

Kind regards,

#### Appendix B: Sample interview questions

#### The Bartlett School of Planning



#### **Post-Graduate Dissertation Interview**

Interviewee: Ms X

Date and Location: 08:15 21/06/2022, online (MS Teams)

Project Title: An investigation into the efficacy of BREEAM Communities in facilitating citizen

participation processes for urban developments in the UK

Interviewer: X

#### **Opening Questions**

Tell me a bit about yourself and your career so far...

#### **Theme 1: BREEAM Communities overview**

- How have you used BREEAM Communities in your work?
- How have you found your experience using BREEAM Communities?

#### **Theme 2: BREEAM Communities and Citizen Participation**

- From your understanding, how does BREEAM Communities encourage citizen participation to occur?
- How did this manifest itself for the project(s) you worked on?
- How effective do you perceive the BREEAM Communities method of encouraging citizen engagement to be?

#### Theme 3: Citizen participation in urban redevelopments in the UK

What do you think are the biggest barriers to good quality citizen engagement in urban redevelopments?

### <u>Theme 4: Opportunities for enhancing how BREEAM Communities encourages citizen engagement</u>

 Given this, how do you think BREEAM Communities could tackle these issues and be enhanced to increase the quality of citizen engagement in UK redevelopment projects?

#### Information and consent form

Project Title An investigation into the efficacy of BREEAM Communities in

facilitating citizen participation processes for urban developments in

the UK

Researcher Will Chantry

#### Introduction

You are being invited to take part in a research project being undertaken by a Masters student from the Bartlett School of Planning, University College London (UCL).

Before you decide whether or not to participate it is important for you to understand why the research is being conducted and what participation will involve. Please read the following information carefully, feel free to discuss it with others if you wish, or ask the research team for clarification or further information. Please take time to decide whether or not you wish to take part.

#### Why is this research being conducted?

The aim of this project is to investigate the efficacy of BREEAM Communities in facilitating citizen participation processes for urban developments in the UK.

#### Why am I being invited to take part?

You are being invited to take part due your role as an assessor of BREEAM Communities projects in the UK. I believe your insight into the framework's assessment process would be valuable in helping me achieve my research aim above.

#### Do I have to participate?

Participation is entirely voluntary. If you do choose to participate and then change your mind, you may withdraw from the research at any time with no consequences and without having to give a reason.

#### What will happen if I choose to take part?

If you do choose to participate, you will be invited to an online interview to explore the issues highlighted above. The interview will be conducted via a mutually agreed telecommunications platform. The interview will last approximately 30-45 minutes and will be audio recorded (and transcribed at a later date). You will have the opportunity to see the

interview transcript and agree any amendments with the researcher after the interview is concluded.

#### What are the advantages of taking part?

There are no immediate benefits for participating in this project and no financial incentive or reward is offered, however it is hoped that findings from this project will be used to contribute to the aim of further enhancing how citizens are involved in urban planning, with the aim to build better places for society.

#### What are the possible disadvantages of taking part?

We anticipate no significant disadvantages associated with taking part in this project. If you experience any unexpected adverse consequences as a result of taking part in the project you are encouraged to contact the researcher as soon as possible using the contact details on page 2 of this information and consent sheet.

#### If I choose to take part, what will happen to the data?

The interview data will be anonymized at the point of transcription and identified by a general identifier (e.g. 'Planning officer A' or 'Planning consultant B' or a suitable pseudonym). A record of participant identities and any notes will be kept separately and securely from the anonymized data. All data and information affiliated with this project will be securely stored on an encrypted computer drive and physical documents will be stored securely on University property.

The data will be only used for the purposes of this research and relevant outputs and will not be shared with any third party. The anonymized data may be utilized in the written dissertation produced at the end of this project, and this dissertation may then be made publicly available via the University Library's Open Access Portal, however no identifiable or commercial sensitive information will be accessible in this way.

#### What will happen to the results of the research project?

It is anticipated that the data collected in this project will be included in the dissertation produced at the end of this project, submitted for the award of a Masters degree at University College London (UCL). You will not be personally identified in any of the outputs from this work, and attributions and quotations will be anonymized. If you would like to receive an electronic copy of any outputs stemming from this project please ask the contact below who will be happy to provide this.

#### **Contact Details**

If you would like more information or have any questions or concerns about the project or your participation please use the contact details below:

Primary contact Will Chantry

Role MSc student

Email will.chantry.18@ucl.ac.uk

**Telephone** 07763908904

Supervisor Dr Catalina Turcu

Role MSc dissertation supervisor

Email catalina.turcu@ucl.ac.uk

**Telephone** 02031089525

#### Concerns and / or Complaints

If you have concerns about any aspect of this research project please contact the MSc student contact the student in the first instance, then escalate to the supervisor.

# Informed Consent Sheet Title of project

If you are happy to participate, please complete this consent form by ticking the boxes to acknowledge the following statements and signing your name at the bottom of the page.

Please give the signed form to the researcher conducting your interview before the interview. They will also be able to explain this consent form further with you, if required.

1.	I have read and understood the information sheet.	
2.	I agree to participate in the above research by attending an online interview as described on the Information Sheet.	
3.	I understand that my participation is entirely voluntary.	
4.	I understand that I may withdraw at any time without giving a reason and with no consequences.	
5.	I agree for the interview to be audio recorded.	
6.	I understand that I may see a copy of the interview transcript after it has been transcribed and agree any amendments with the researcher.	

7.	I understand that the intention is that interviews are anonymised and that if any of my words are used in a research output that they will not be directly attributed to me unless otherwise agreed by all parties.	
8.	I understand the data from this project will be considered for repository in the UCL Open Access repository as described on the Information Sheet but that this will be anonymised data only.	
9.	I understand that I can contact the student who interviewed me at any time using the email address they contacted me on to arrange the interview, or the dissertation supervisor using the contact details provided on page X of the information sheet.	

Participant name: X Signature: X Date:

Researcher name: X Signature:  $\chi$  Date: 14/06/22

#### **Ethical Clearance Pro Forma**

It is important for you to include all relevant information about your research in this form, so that your supervisor can give you the best advice on how to proceed with your research.

You are advised to read though the relevant sections of UCL's Research Integrity guidance to learn more about your ethical obligations.

#### **Submission Details**

- 1. Name of programme of study: MSc Sustainable Urbanism
- Please indicate the type of research work you are doing (Delete that which do not apply):
- Dissertation in Planning (MSc)
- Please provide the current working title of your research: An investigation into the efficacy of BREEAM Communities in facilitating high quality citizen participation processes for urban developments in the UK
- 4. Please indicate your supervisor's name: Dr Catalina Turcu

#### **Research Details**

- Please indicate here which data collection methods you expect to use. (Tick all that apply/or delete those which do not apply.)
- Interviews
- o Documentary analysis (including use of personal records)
- o Secondary data analysis
- Please indicate where your research will take place (delete that which does not apply):
  - o UK only
- 7. Does your project involve the recruitment of participants?

'Participants' means human participants and their data (including sensor/locational data and observational notes/images.)

Yes

#### Appropriate Safeguard, Data Storage and Security

8. Will your research involve the collection and/or use of personal data?

Personal data is data which relates to a living individual who can be identified from that data or from the data and other information that is either currently held, or will be held by the data controller (you, as the researcher).

#### This includes:

- Any expression of opinion about the individual and any intentions of the data controller or any other person toward the individual.
- Sensor, location or visual data which may reveal information that enables the identification of a face, address etc. (some post codes cover only one property).
- Combinations of data which may reveal identifiable data, such as names, email/postal addresses, date of birth, ethnicity, descriptions of health diagnosis or conditions, computer IP address (of relating to a device with a single user).

Yes

- 9. Is your research using or collecting:
- special category data as defined by the General Data Protection Regulation\*, and/or
- data which might be considered sensitive in some countries, cultures or contexts?
   \*Examples of special category data are data:
- which reveals racial or ethnic origin, political opinions, religious or philosophical beliefs, trade union membership;
- concerning health (the physical or mental health of a person, including the provision of health care services);
- · concerning sex life or sexual orientation;
- genetic or biometric data processed to uniquely identify a natural person.

No

- Do you confirm that all personal data will be stored and processed in compliance with the General Data Protection Regulation (GDPR 2018)? (Choose one only, delete that which does not apply)
  - Yes

#### 11. I confirm that:

- The information in this form is accurate to the best of my knowledge.
- I will continue to reflect on and update these ethical considerations in consultation with my supervisor.

Yes

Appendix E: Approved risk assessment form

## RISK ASSESSMENT FORM FIELD / LOCATION WORK

DEPARTMENT/SECTION: BARTLETT SCHOOL OF PLANNING

LOCATION(S): LONDON, UNITED KINGDOM

PERSONS COVERED BY THE RISK ASSESSMENT: Will Chantry

BRIEF DESCRIPTION OF FIELDWORK (including geographic location): My fieldwork will comprise semi-structured interviews with key stakeholders in BREEAM Communities-assessed projects. This will potentially include BREEAM Communities assessors, project developers and municipality employees. Interviews will be conducted online, via Microsoft Teams.

#### COVID-19 RELATED GENERIC RISK ASSESSMENT STATEMENT:

Coronavirus disease (COVID-19) is an infectious disease caused by coronavirus SARS-CoV-2. The virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes. Droplets fall on people in the vicinity and can be directly inhaled or picked up on the hands and transferred when someone touches their face. This risk assessment documents key risks associated fieldwork during a pandemic, but it is not exhaustive and will not be able to cover all known risks, globally. This assessment outlines principles adopted by UCL at an institutional level and it is necessarily general. Please use the open text box 'Other' to indicate any contingent risk factors and control measures you might encounter during the course of your dissertation research and writing.

Please refer to the Dissertation in Planning Guidance Document (available on Moodle) to help you complete this form.

Hazard 1: Risk of Covid -19 infection during research related travel and research related interactions with others (when face-to-face is possible and/or unavoidable)

Risk Level - Medium / Moderate

**Existing Advisable Control Measures**: Do not travel if you are unwell, particularly if you have COVID-19 symptoms. Self-isolate in line with NHS (or country-specific) guidance.

Avoid travelling and face-to-face interactions; if you need to travel and meet with others:

- If possible, avoid using public transport and cycle or walk instead.
- If you need to use public transport travel in off-peak times and follow transport provider's and governmental guidelines.
- Maintain (2 metre) social distancing where possible and where 2 metre social distancing is not achievable, wear face covering.
- Wear face covering at all times in enclosed or indoor spaces.
- Use hand sanitiser prior to and after journey.
- Avoid consuming food or drinks, if possible, during journey.
- Avoid, if possible, interchanges when travelling choose direct route.
- Face away from other persons. If you have to face a person ensure that the duration is as short as possible.
- Do not share any items i.e. stationary, tablets, laptops etc. If items need to be shared use disinfectant wipes to disinfect items prior to and after sharing.
- If meeting in a group for research purposes ensure you are following current country specific guidance on face-to-face meetings (i.e rule of 6 etc.)
- If and when possible meet outside and when not possible meet in venues with good ventilation (e.g. open a window)

- If you feel unwell during or after a meeting with others, inform others you have interacted with, self-isolate and get tested for Covid-19
- Avoid high noise areas as this mean the need to shout which increases risk of aerosol transmission of the virus.
- Follow one way circulation systems, if in place. Make sure to check before you visit a building.
- Always read and follow the visitors policy for the organisation you will be visiting.
- Flush toilets with toilet lid closed.
- -'Other' Control Measures you will take (specify):

NOTE: The hazards and existing control measures above pertain to Covid-19 infection risks only. More generalised health and safety risk may exist due to remote field work activities and these are outlined in your Dissertation in Planning Guidance document. Please consider these as possible 'risk' factors in completing the remainder of this standard form. For more information also see: Guidance Framework for Fieldwork in Taught and MRes Programmes, 2021-22

Consider, in turn, each hazard (white on black). If **NO** hazard exists select **NO** and move to next hazard section.

If a hazard does exist select **YES** and assess the risks that could arise from that hazard in the risk assessment box.

Where risks are identified that are not adequately controlled they must be brought to the attention of your Departmental Management who should put temporary control measures in place or stop the work. Detail such risks in the final section.

ENVIF	RONMENT	The environment always represents a safety hazard. Use space below to identify and assess any risks associated with this hazard				
e.g. location, climate, terrain, neighbourhood, in outside organizations,		Examples of risk: adverse weather, illness, hypothermia, assault, getting lost. Is the risk high / medium / low ?				
pollution, animals.		Overheating whilst conducting an online interview in summer months – LOW RISK				
		Being assaulted for my laptop when conducting an online interview – LOW RISK				
CONT	ROL MEASURES	Indicate which procedures are in place to control the identified risk				
	work abroad incorp	orates Foreign Office advice				
	only accredited cer	ntres are used for rural field work				
YES	participants will we	ear appropriate clothing and footwear for the specified environment				
	refuge is available	•				
	work in outside org	anisations is subject to their having satisfactory H&S procedures in place				
YES	OTHER CONTROL implemented:	MEASURES: please specify any other control measures you have				

Ensure I conduct all interviews in my own home or on UCL property, limiting chances of theft or assault as these are private spaces.

EMERGENCIES Where emergencies may arise use space below to identify and assess any risks

e.g. fire, accidents Examples of risk: loss of property, loss of life

Fire in my own home whilst conducting online interviews - LOW RISK

Theft of laptop or phone whilst conducting online interviews - LOW RISK

# participants have registered with LOCATE at <a href="http://www.fco.gov.uk/en/travel-and-living-abroad/">http://www.fco.gov.uk/en/travel-and-living-abroad/</a> YES contact numbers for emergency services are known to all participants Participants have means of contacting emergency services a plan for rescue has been formulated, all parties understand the procedure the plan for rescue /emergency has a reciprocal element YES OTHER CONTROL MEASURES: please specify any other control measures you have implemented:

Ensure all candles or other fire hazards are not active when conducting an online interview Ensure I conduct all interviews in my own home or on UCL property, limiting chances of theft or assault as these are private spaces

FIELDWORK 1 May 2010

EQUIPMENT	Is equipment	NO	If 'No' move to next hazard		
	used?		If 'Yes' use space below to identify and assess		
			any		
			risks		
e.g. clothing, outboard motors.	Examples of risk: inappropriate, failure, insufficient training to use or repair,				
motors.	injury. Is the risk high / medium / low ?				
CONTROL MEASURES	Indicate which pro	ocedures	are in place to control the identified risk		
	Indicate which pro		·		
the departmental	written Arrangement	for equip	·		
the departmental participants have	written Arrangement been provided with a	for equip	ment is followed		
the departmental participants have all equipment has	written Arrangement been provided with a	for equip any neces fore issue	oment is followed ssary equipment appropriate for the work		

ONE WOR	KING	Is lone working a possibility?	YES	If 'No' move to next hazard If 'Yes' use space below to identify and ass any	ess		
				risks			
•	r in isolation ws	Examples of risk:	difficult to	summon help. Is the risk high / medium / low?			
lone interviews.		check-ups on me a Interviewing online RISK	Interviewing online by myself may leave me vulnerable to theft or assault – LOW				
	MEASURES			are in place to control the identified risk			
the	departmental	written Arrangement	t for lone/	are in place to control the identified risk out of hours working for field work is followed			
the	departmental e or isolated w	written Arrangement rorking is not allowed	t for lone/d	·	ces		
the lone	departmental e or isolated w tion, route an workers have t	written Arrangement rorking is not allowed d expected time of re	t for lone/o I eturn of lo	out of hours working for field work is followed			
the lone loca YES all w	departmental or isolated wation, route an workers have t	written Arrangement rorking is not allowed d expected time of re	t for lone/old deturn of lo an alarm	out of hours working for field work is followed ne workers is logged daily before work commen in the event of an emergency, e.g. phone, flare,			
the lone loca all v whis all v	departmental e or isolated w tion, route an vorkers have t stle vorkers are fu	written Arrangement orking is not allowed dexpected time of rethe means of raising	t for lone/of deturn of lo an alarm	out of hours working for field work is followed ne workers is logged daily before work commen in the event of an emergency, e.g. phone, flare,			
the lone loca YES all v YES all v YES OTH	departmental or isolated w ution, route an workers have t stle workers are ful HER CONTRO	written Arrangement orking is not allowed dexpected time of rethe means of raising	t for lone/of deturn of lo an alarm	out of hours working for field work is followed ne workers is logged daily before work commen in the event of an emergency, e.g. phone, flare, cedures			
the lone loca all whis YES all works YES OTH implementations.	departmental e or isolated w ation, route an workers have t stle workers are ful HER CONTRO lemented: I conduct all i	written Arrangement rorking is not allowed dexpected time of rethe means of raising ally familiar with emer DL MEASURES: please are verified as emerged with the means of the means of raising and the means of raising all t	t for lone/of deturn of lo an alarm gency pro ase specif	out of hours working for field work is followed ne workers is logged daily before work commen in the event of an emergency, e.g. phone, flare, cedures			
the lone loca all v whis YES all v OTH implementations.	departmental e or isolated w ation, route an workers have t stle workers are ful HER CONTRO lemented: I conduct all i	written Arrangement orking is not allowed dexpected time of rethe means of raising ally familiar with emer DL MEASURES: please of the means of the m	t for lone/of deturn of lo an alarm gency pro ase specif	out of hours working for field work is followed  ne workers is logged daily before work commen in the event of an emergency, e.g. phone, flare, cedures y any other control measures you have osure to dangerous environments/people.			

		below to identify and assess any risks associated with this Hazard.					
persor	ccident, illness, nal attack,	Examples of risk: injury, asthma, allergies. Is the risk high / medium / low?  Repetitive strain injury from typing too hard – MEDIUM RISK					
•	al personal derations or						
⁄ulner	abilities.	Risk of headache from staring at a screen too much – MEDIUM RISK					
CONT MEAS	ROL SURES	Indicate which procedures are in p	lace to control the identified risk				
YES	all participants	nave had the necessary inoculations/ o	carry appropriate prophylactics				
	participants have physically suite		ds of the research and are deemed to be				
	participants have	ve been adequate advice on harmful pl	ants, animals and substances they may				
	participants wh	o require medication should carry suffic	cient medication for their needs				
YES		ROL MEASURES: please specify any	other control measures you have				
	implemented:						
	implemented:						
		nterviews so they are not within the sa	me hour, allowing myself some breaks to				
	I will schedule i	-	me hour, allowing myself some breaks to				
	I will schedule i	nterviews so they are not within the sa and typing time.	me hour, allowing myself some breaks to				
	I will schedule i reduce screen	and typing time.					
	I will schedule i reduce screen	Will transport be NO Mor	ve to next hazard				
	I will schedule i reduce screen	Will transport be NO Mor					
	I will schedule i reduce screen	Will transport be NO More Examples of risk: accidents arising fi	ve to next hazard				
e.g. hi	I will schedule reduce screen  SPORT  ired vehicles	Will transport be NO More Examples of risk: accidents arising fitraining	ve to next hazard rom lack of maintenance, suitability or				
e.g. hi	I will schedule i reduce screen  SPORT ired vehicles	Will transport be NO More Examples of risk: accidents arising fitraining Is the risk high / medium / low?	ve to next hazard rom lack of maintenance, suitability or				
e.g. hi	I will schedule reduce screen  SPORT  ired vehicles  TROL  SURES	Will transport be NO More Examples of risk: accidents arising fitraining Is the risk high / medium / low?	ve to next hazard rom lack of maintenance, suitability or				
e.g. hi	I will schedule is reduce screen  SPORT ired vehicles  GROL SURES  only public trans	Will transport be NO More Examples of risk: accidents arising fitraining Is the risk high / medium / low?  Indicate which procedures are in procedures.	ve to next hazard rom lack of maintenance, suitability or				
e.g. hi	I will schedule is reduce screen  SPORT ired vehicles  CROL GURES  only public transthe vehicle will	Will transport be NO More Examples of risk: accidents arising from training Is the risk high / medium / low?  Indicate which procedures are in pasport will be used	ve to next hazard rom lack of maintenance, suitability or lace to control the identified risk				
e.g. hi	I will schedule i reduce screen  SPORT ired vehicles  TROL SURES  only public trant the vehicle will transport must	Will transport be NO More Examples of risk: accidents arising fitraining Is the risk high / medium / low?  Indicate which procedures are in purpose the properly maintained in compliance with the property maintained in compliance with the pr	ve to next hazard rom lack of maintenance, suitability or lace to control the identified risk				
e.g. hi	I will schedule is reduce screen  SPORT  ired vehicles  CROL  SURES  only public trant the vehicle will transport must drivers comply	Will transport be NO More Examples of risk: accidents arising from training Is the risk high / medium / low?  Indicate which procedures are in purpose sport will be used to be hired from a reputable supplier to be properly maintained in compliance with UCL Policy on Drivers http://www.	ve to next hazard  rom lack of maintenance, suitability or  value to control the identified risk  with relevant national regulations  ucl.ac.uk/hr/docs/college_drivers.php				
e.g. hi	I will schedule i reduce screen  SPORT ired vehicles  Only public trant the vehicle will transport must drivers comply drivers have be	Will transport be NO More Examples of risk: accidents arising fit training Is the risk high / medium / low?  Indicate which procedures are in purpose the properly maintained in compliance with UCL Policy on Drivers http://www.en trained and hold the appropriate lice.	ve to next hazard  rom lack of maintenance, suitability or  place to control the identified risk  with relevant national regulations  .ucl.ac.uk/hr/docs/college_drivers.php ence				
e.g. hi	I will schedule is reduce screen  SPORT ired vehicles  TROL SURES  Only public trans the vehicle will transport must drivers comply drivers have be there will be more	Will transport be NO More Examples of risk: accidents arising fit training Is the risk high / medium / low?  Indicate which procedures are in purpose the properly maintained in compliance with UCL Policy on Drivers http://www.en trained and hold the appropriate lice.	ve to next hazard  rom lack of maintenance, suitability or  value to control the identified risk  with relevant national regulations  ucl.ac.uk/hr/docs/college_drivers.php				
e.g. hi	I will schedule is reduce screen  SPORT  ired vehicles  CROL  SURES  Only public transport must drivers comply drivers have be there will be morest periods	Will transport be NO More Examples of risk: accidents arising fit training Is the risk high / medium / low?  Indicate which procedures are in purpose by the property maintained in compliance with UCL Policy on Drivers http://www.en trained and hold the appropriate lice are than one driver to prevent driver/operty.	ve to next hazard  rom lack of maintenance, suitability or  value to control the identified risk  with relevant national regulations  c.ucl.ac.uk/hr/docs/college_drivers.php ence erator fatigue, and there will be adequate				
e.g. hi	I will schedule is reduce screen  SPORT  ired vehicles  Only public transport must drivers comply drivers have been there will be morest periods sufficient spare pare pare pare pare pare pare pare	Will transport be NO More Examples of risk: accidents arising for training Is the risk high / medium / low?  Indicate which procedures are in pusport will be used be hired from a reputable supplier be properly maintained in compliance with UCL Policy on Drivers http://www.en trained and hold the appropriate lice ore than one driver to prevent driver/opearts carried to meet foreseeable emergence.	ve to next hazard  rom lack of maintenance, suitability or  value to control the identified risk  with relevant national regulations  ucl.ac.uk/hr/docs/college_drivers.php ence erator fatigue, and there will be adequate				
e.g. hi	I will schedule is reduce screen  SPORT  ired vehicles  Only public transport must drivers comply drivers have been there will be morest periods sufficient spare pare pare pare pare pare pare pare	Will transport be NO More Examples of risk: accidents arising fit training Is the risk high / medium / low?  Indicate which procedures are in purpose by the property maintained in compliance with UCL Policy on Drivers http://www.en trained and hold the appropriate lice are than one driver to prevent driver/operty.	ve to next hazard  rom lack of maintenance, suitability or  value to control the identified risk  with relevant national regulations  ucl.ac.uk/hr/docs/college_drivers.php ence erator fatigue, and there will be adequate				

PUBLI	IC	dealing with public	YES	If 'Yes' use space below to identify and assess any			
		risks					
e.g. interviews, observing		Examples of risk: personal attack, causing offence, being misinterpreted. Is the risk high / medium / low?					
		Interviews- risk of offending my interviewees with language or what is on my screen – LOW RISK					
		Interviews- risk of verbal abuse – LOW RISK					
CONT		Indicate which proc	edures a	re in place to control the identified risk			
YES	all participants	are trained in interview	ing techn	ques			
	advice and sup	oort from local groups	has been	sought			
YES	participants do	not wear clothes that r	night caus	se offence or attract unwanted attention			
YES							
	OTHER CONTROL MEASURES: please specify any other control measures you have implemented:						
	at .						

FIELDWORK 3 May 2010

WORKING ON OR	Will people work on	NO	If 'No' move to next hazard
NEAR WATER	or near water?		If 'Yes' use space below to identify and assess any
			risks
e.g. rivers, marshland, sea.	Examples of risk: dro medium / low?	wning, m	alaria, hepatitis A, parasites. Is the risk high /
CONTROL MEASURES	Indicate which proc	edures a	re in place to control the identified risk
lone working on o	or near water will not be	e allowed	

all participants ar	a threat ticipants are competent swimmers pants always wear adequate protective equipment, e.g. buoyancy aids, wellingtons					
	by a competent person ipped with an alternative means of propulsion e.g. oars received any appropriate inoculations  OL MEASURES: please specify any other control measures you have implemented:					
·						
MANUAL HANDLING	Do MH activities	NO	If 'No' move to next hazard			
(MH)	take place?		If 'Yes' use space below to identify and assess			
			any			
e.g. lifting, carrying,	Formula and data at		risks broken bones. Is the risk high / medium / low?			
equipment, physical unsuitability for the task.						
	Indicate which proc	edures a	re in place to control the identified risk			
MEASURES	written Arrangement f	or MH is f	followed			
	·					
measures the departmental the supervisor ha	written Arrangement fo	assessme				
the departmental the supervisor ha all tasks are withi such activities	written Arrangement fo	assessme ersons phy	ent course ysically unsuited to the MH task are prohibited from			
the departmental the supervisor ha all tasks are withi such activities all persons perfor	written Arrangement for a strended a MH risk a strended in reasonable limits, pe	assessme ersons phy dequately t	ent course ysically unsuited to the MH task are prohibited from trained			
the departmental the supervisor ha all tasks are withi such activities all persons perfor equipment compo	written Arrangement for a strended a MH risk as in reasonable limits, per rming MH tasks are additionents will be assemble	assessme ersons phy dequately t led on site	ent course ysically unsuited to the MH task are prohibited from trained			

SUBSTANCES	Will participants work with substances	NO	If 'No' move to next hazard If 'Yes' use space below to identify and assess any risks
e.g. plants, chemical, biohazard, waste		-	isoning, infection, illness, burns, cuts. Is the risk
CONTROL MEASURES	Indicate which proc	edures a	re in place to control the identified risk
all participants are they may encount	e given information, tra ter	ining and	g with hazardous substances and waste are followed protective equipment for hazardous substances leader of this and carry sufficient medication for their
suitable container	of in a responsible mass are provided for haza L MEASURES: please	ardous wa	aste any other control measures you have implemented:
OTHER HAZARDS	Have you identified	NO	If 'No' move to next section
	any other hazards?		If 'Yes' use space below to identify and assess any
i.e. any other hazards must be noted and assessed here.	Hazard: Risk: is the		risks
CONTROL MEASURES	Give details of cont	rol meas	ures in place to control the identified risks
Have you identified an	y risks that are not	NO	Move to Declaration

#### The work will be reassessed whenever there is a significant change and at least **DECLARATION** annually. Those participating in the work have read the assessment. Select the appropriate statement: I the undersigned have assessed the activity and associated risks and declare that there is no Ε significant residual S risk I the undersigned have assessed the activity and associated risks and declare that the risk will be Ε controlled by s the method(s) listed above NAME OF SUPERVISOR DR CATALINA TURCU **FIELDWORK** May 2010

## BPLN0039\_QMMZ4

**GRADEMARK REPORT** 

FINAL GRADE

**GENERAL COMMENTS** 

#### Instructor

PAGE 1	
PAGE 2	
PAGE 3	
PAGE 4	
PAGE 5	
PAGE 6	
PAGE 7	
PAGE 8	
PAGE 9	
PAGE 10	
PAGE 11	
PAGE 12	
PAGE 13	
PAGE 14	
PAGE 15	
PAGE 16	
PAGE 17	
PAGE 18	
PAGE 19	
PAGE 20	

PAGE 21
PAGE 22
PAGE 23
PAGE 24
PAGE 25
PAGE 26
PAGE 27
PAGE 28
PAGE 29
PAGE 30
PAGE 31
PAGE 32
PAGE 33
PAGE 34
PAGE 35
PAGE 36
PAGE 37
PAGE 38
PAGE 39
PAGE 40
PAGE 41
PAGE 42
PAGE 43
PAGE 44
PAGE 45
PAGE 46

PAGE 47
PAGE 48
PAGE 49
PAGE 50
PAGE 51
PAGE 52
PAGE 53
PAGE 54
PAGE 55
PAGE 56
PAGE 57
PAGE 58
PAGE 59
PAGE 60