


# Life+ Climate-Proofing Social Housing Landscapes

# Social Return On Investment (SROI) Report

With the contribution of the LIFE financial instrument of the European Community.

Project No: LIFE12 ENV/UK/001133

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## Executive Summary

This report provides an evaluation of the social return from the *Climate-Proofing Social Housing Landscapes* project. Social Return on Investment (SROI) enables organisations to account for a much broader concept of value than is traditionally accounted for in other evaluation tools.

The project delivered a programme of capital improvements, community engagement and training across three housing estates in the London Borough of Hammersmith and Fulham to enable residents and the local authority to become more resilient to the effects of climate change. This evaluation was undertaken over the course of two years.

This analysis demonstrated that green infrastructure-based climate change adaptation measures benefit local communities beyond their immediate role of alleviating localised flooding. The measures installed as part of the capital works programme brought about outcomes that increased residents' pride in their local area, their sense of belonging and their social ties to their neighbours; all factors which contribute to community cohesion. This SROI also established that the community engagement and training programme contributed to residents' knowledge of climate change. It is envisaged that this knowledge will enable residents to be more prepared for, and responsive to, the effects of a changing climate.

Along with the residents, several other stakeholders experienced positive outcomes; these included the local authority, green team apprentices and volunteers. For the purpose of this assessment, the environment is also included as a stakeholder.

This was the first use of SROI on a Groundwork London project. As such the knowledge that this exercise has generated is of great value to the organisation and recommendations have been made as to how SROI can be implemented within the wider organisation.

It was found that for every £1 invested in the *Climate-Proofing Social Housing Landscapes* project the programme generated £4.39 of benefits. This ratio was arrived at by using financial proxies to give value to outcomes and by establishing the true impact though using deadweight, displacement, attribution, drop-off and discounting measures common to the SROI process. When applying sensitivity analysis to test our assumptions this figure varied in a range of £2.31 to £5.15 for every £1 invested.

## Introduction to Social Return On Investment

Social Return On Investment (SROI) is an outcomes-based framework for measuring and accounting for a much broader concept of value than is traditionally accounted for in other evaluation tools. It seeks to reduce inequality and environmental degradation and improve wellbeing by incorporating social, environmental and economic costs and benefits.[1] These costs and benefits are given monetary values to represent them, thus enabling a ratio of benefits to costs to be calculated. For example, a ratio of 3:1 indicates that an investment of £1 delivers £3 of social value.

There are two types of SROI analysis: a forecast SROI predicts the impact of a project or activity; and an evaluative SROI measures changes that have taken place. This report is an evaluative SROI.

We mitigated against not being able to refine our outcomes from the findings of a forecast SROI by concentrating on engaging relevant stakeholders in deciding which outcomes were to be analysed.

## Scope and Stakeholders

**Our Organisation**

Groundwork London is part of a national federation of independent charitable Trusts supporting communities across the UK to create better places, live and work in a greener, more sustainable way and improve their economic prospects. Our local programmes and services are tailored to the needs of the communities we work with and our local partners. Groundwork London provides training and creates jobs, and aims to reduce energy and waste, re-connect people with nature and transform whole neighbourhoods. Groundwork has been working in partnership with the London Borough of Hammersmith and Fulham for 14 years.

**Purpose of the Analysis**

This SROI report evaluates the activities of one of our local programmes in London, *Climate-Proofing Social Housing Landscapes*. The programme is co-financed by the European Commission's (EC) LIFE+ programme, which is the EC's funding instrument supporting environment and nature conservation projects throughout the European Union (EU).

The purpose of using this methodology is to understand how the project adds value in terms of the additional social impacts of the actions it has delivered. This helps to maximise the value of these

[1] Cabinet Office, 2012, A guide to Social Return on Investment

impacts on local people and places and will enable us to effectively communicate these impacts to our main target audiences, wider stakeholders and funders.

**Project Activity**

The project's overarching aim is to contribute to the climate-proofing of vulnerable urban environments by retrofitting green and blue infrastructure in social housing landscapes and developing local institutional and individual stakeholders' adaptive capacity and resilience.

The project is delivering these outputs on three social housing estates in the London Borough of Hammersmith and Fulham (LBHF). The Borough manages these estates and is also the main partner in this project.

**Scope**

The purpose of this SROI is to analyse the project's social, economic and environmental outputs, which represent the majority of the project's outputs that were agreed with the EC. The technical performance and impact of the green infrastructure measures and the impact of the communications activities have been evaluated separately.

The table below outlines the planned project outputs that are the focus of this SROI evaluation:

| | |
|---|---|
| 35 work placements | 300 local people engaged |
| 2500$m^2$ of enhanced green infrastructure | 578 households reached |
| 25% increase in permeable surfaces | 36 community activities delivered |
| 20,000$m^3$ of water retention capacity | 12 sustainability champions recruited |
| 600 trees planted | 99 meetings with delivery partners |
| 600$m^2$ of green roofs | 11 Steering Group meetings |
| 400$m^2$ of food growing capacity | 8 organisations represented on the steering group |
| 10 rain water harvesting systems | 500 key stakeholders engaged |
| 24 LBHF housing staff engaged | 8 workshops delivered |

Figure 1: Outputs

**Stakeholders**

During the early stages of the project, and prior to data collection, the community engagement lead studied the project outputs to determine which stakeholders were the primary beneficiaries.

**Estate residents** were the primary project beneficiaries through the capital works and community engagement programme. The capital works improved the quality of their estates' green spaces through the implementation of climate adaptation measures. Across the three target estates, the project reached approximately 1,280 residents.

**Volunteers** encompass people who worked with Groundwork London on a voluntary basis and who added value to the project through the contribution of their time. Three volunteers worked on the project collectively over a period of 9 months.

**Green Team apprentices** undertook and maintained the soft landscaping of the green infrastructure measures installed, were waged and benefited from practical training. 22 apprentices were trained as part of the project.

**The local authority** (LBHF) was also included as a stakeholder as they are a project partner and the landowner of the three estates.

The concept of **the environment** was also considered to be a stakeholder. As a stakeholder we examined the environment benefits of the project from the view of the efficiency and sustainability benefits that were brought about from both the greening of the three estates and through the community engagement programme.

**Engaging Stakeholders**

The stakeholder groups were engaged in a number of different ways.

Estate residents were engaged through the delivery of the community engagement strategy developed early on in the project. The strategy included consultation events, community gardening sessions, Green Doctor home visits, community meetings and launch events; in total 437 residents were engaged in-depth throughout the project.

At events held to consult on the project, discussions took place about the outcomes that the programme could bring about in order to start the process of estate residents thinking about social return. Later an activity to rank outcomes previously discussed in order of importance was performed, to prioritise the outcomes this stakeholder group valued.

Furthermore this group was also engaged in the SROI process during the data collection stage; 102 residents were surveyed as part of this evaluative SROI. The survey is included in this report in appendix 7. Surveys were conducted at launch events and through door to door engagement after

the capital works had been completed. Door to door surveys were conducted at different times of the day to ensure an unbiased sample of the estate population was surveyed.

Engaging the local authority in the SROI process was accomplished through regular steering group meetings. The steering group was comprised of the project team from Groundwork London, representatives from the local authority's Estate Services Team and the tri-borough Flood Risk Manager. The steering group met a total of 27 times throughout the project.

Volunteers and apprentices were engaged through one to one interviews during the course of their time with Groundwork London. Three interviews took place over the course of the project.

Environmental service providers were engaged through discussions at the project's advisory group meetings. The advisory group is made up of representatives from service providers, industry bodies and local and national government departments.

## Inputs, Outputs and Outcomes

An SROI analysis uses terms such as inputs, outputs and outcomes to reflect different actions and consequences of an action. In brief an input reflects the investments made to achieve the project outputs while outputs describe what has happened in order to meet the desired outcomes. Outcomes reflect the change that has taken place as a result of these activities. The relationship between inputs, outputs and outcomes is described as the theory of change (often depicted as an impact map).

**Theory of Change from the Perspective of Stakeholders**

The theory of change on which this SROI is based is that urban retrofitting of green infrastructure can provide benefits to local communities, institutions and governments through increasing the resilience of social housing to the potential impacts of climate change. By working closely with local residents and the local authority this has enabled us to provide training, engagement and apprenticeships, thus promoting the wider adoption of these measures within a housing context and improving the local communities' engagement and use of their green spaces.

**Residents**

Local residents of the three housing estates were the largest group of beneficiaries in terms of outcomes. The outcomes for local residents focus around their relationship to the green spaces and the degree to which the project has increased their engagement with and use of these spaces through the capital works and community engagement programme. Beyond this, the outcomes also

focus on how participation in the project has led to an increased understanding among residents of climate change and its potential impacts.

**Volunteers**

A mutually beneficial volunteering experience is one that benefits both the volunteer and the organisation. The outcome for this group is to achieve an experience that benefits the volunteer and the organisation through adherence to Groundwork's volunteering principles, as follows;

2.2. Volunteering Principles

Groundwork London's volunteer policy is underpinned by the following principles. Groundwork London;

- ensures that volunteers are properly integrated into the organisational structure and that mechanisms are in place to support them in contributing to the Trust's work
- recognises volunteers as a core part of our team, with a distinctive and complementary role along side paid staff
- ensures that the concerns of volunteers are listened to and given due consideration
- explains and accepts its responsibility for its volunteers and their well being and respects their wish to always have a fair hearing if a conflict arises
- ensures that volunteers enhance its services by providing support to persons undertaking existing roles, and that they do not carry out work or become responsible for delivering outcomes that are normally the responsibility of paid staff
- expects that staff at all levels will work positively with volunteers and will actively seek to involve them in their work
- recognises that volunteers require satisfying work and personal development, and will seek to assist volunteers to meet these needs where it is appropriate, and to support them in achieving their role performance
- recognises that volunteers are a valuable and integral part of society who deserve appropriate support and recognition.

**Figure 2: Groundwork London Volunteering Policy**

**Green Team Trainees**

Green Team trainees are participants on Groundwork London's green apprenticeship programme. Through the apprenticeship programme trainees are given on the job training in grounds maintenance and soft landscaping, alongside the opportunity to achieve a Level 1 NVQ in grounds maintenance. The programme has a high success rate in getting participants into paid employment upon completion of their apprenticeship, which is the key outcome for this stakeholder group.

**Local Authority**

The London Borough of Hammersmith and Fulham has a number of wider strategic objectives associated with water management and climate change which the project has contributed to. The outcomes for the local authority that are the focus of this SROI concern the up-skilling of their

workforce through the project's maintenance and commissioning training, community engagement raising the awareness of residents and the wider local community in regard to climate change and its potential impacts, and the increased resilience of the housing stock through the capital works. This in turn can lead to cost savings as finance usually required to address damage caused by heavy rain and other extreme weather events can be diverted elsewhere.

**Environment**

The outcomes for the environment were focused on improvements to sustainable water management and $CO_2$ absorption, both through the capital works programme and the Green Doctor home visits that formed part of the community engagement programme. Other benefits for the environment include increased biodiversity, evaporative cooling and air quality which have not been included in this exercise; the rationale for this is set out in appendix 2.

**Inputs, Outputs & Outcomes**

*Inputs*

For this project the primary input was project funding, which was utilised to pay for staff time, capital costs and expenditure to achieve the outputs set out in Figure 1. A range of institutions including the EU LIFE+ Programme, Mayor of London (Greater London Authority), Western Riverside Environment Fund, London Borough of Hammersmith and Fulham, Thames Water and Hammersmith Business Improvement District contributed funding towards the project. The only other input factored in is time, both of residents to attend meetings, events and training sessions and that provided by volunteers. Time spent by residents on the project is recorded at no value as it is freely given in an informal way; however time spent by volunteers can be given a value by recording their hours worked and using the National Minimum Wage to make it equivalent to a paid employee. Staff time is captured within the funding input.

Figure 3 below gives the input values used in the SROI:

| Description | Amount |
|---|---|
| Volunteer time at national minimum wage | £1,608.00 |
| Total project funding | £1,338,000 |

Figure 3: Inputs

*Outputs*

With the funding and time commitments from our project funders and stakeholders we were able to achieve a range of outputs. These outputs were detailed in our funding agreements with the different institutions, and as part of the SROI process these outputs were matched with stakeholder groups who would see the greatest beneficial outcomes. Not all outputs achieved by the project are included within this evaluation; an explanation of why this is the case can be found in the appendices of this report.

The planned project outputs identified and included in the SROI are:

| Stakeholder | Output |
|---|---|
| **Local Residents** | 2500m$^2$ of enhanced green infrastructure<br>600 trees planted<br>600m$^2$ of green roofs<br>400m$^2$ of food growing capacity<br>578 households reached<br>36 community activities delivered<br>12 sustainability champions recruited<br>300 local people engaged |
| **Volunteers** | 240 hours of volunteer contribution to project |
| **Green Team Trainees** | Create 35 work placements |
| **Local Authority** | Increases in revenues from social housing<br>24 LBHF staff trained<br>24 representatives from other housing providers taking part in the masterclass |
| **Environment** | 2500m$^2$ of enhanced green infrastructure<br>600 trees planted<br>600m$^2$ of green roofs<br>400m$^2$ of food growing capacity<br>25% increase in permeable surfaces<br>20,000m$^3$ of water retention capacity<br>80 Energy efficiency home visits |

**Figure 4: Outputs & Stakeholders**

## Outcomes and Financial Proxies

### Outcomes Evidence

Indicators are used to measure whether or not a specific outcome has been achieved. In this project, indicators were included in evaluation surveys performed after the intended change, i.e. the capital works programme, training programme or Green Doctor home visit. These surveys were face to face surveys conducted by Groundwork London staff, with residents at each of the three project sites. Indicators measuring outcomes that were not compatible with being measured using an evaluation survey come from data collected by the local authority, attendance recording at gardening clubs or the project's environmental monitoring consultants. A table detailing the indicators used can be found in appendix 5. An example of an indicator within the theory of change is below in figure 5.

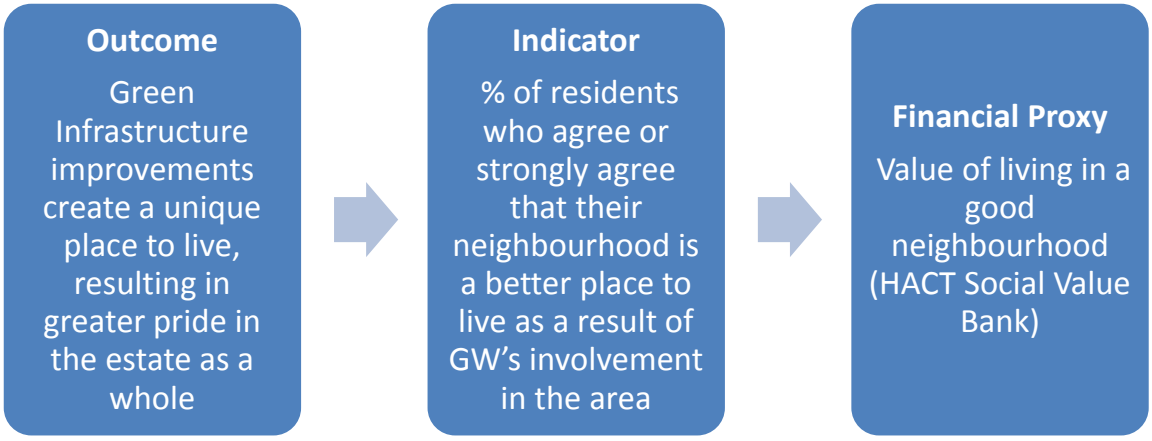


Figure 5: Indicator Example

### Valuations (Financial Proxies)

SROI uses financial proxies to represent the value of an outcome for the stakeholders. In this project, financial proxies for indicators were mostly sourced from pre-existing data sets and other SROI analyses. Where pre-existing data sets were not available or incompatible with our outcomes we used stated preference questions in evaluation forms to establish a willingness to pay (WTP) financial proxy.

The financial proxies used for each outcome, and their sources, are detailed in appendix 3. An example of a financial proxy within the theory of change can be found below in figure 6.

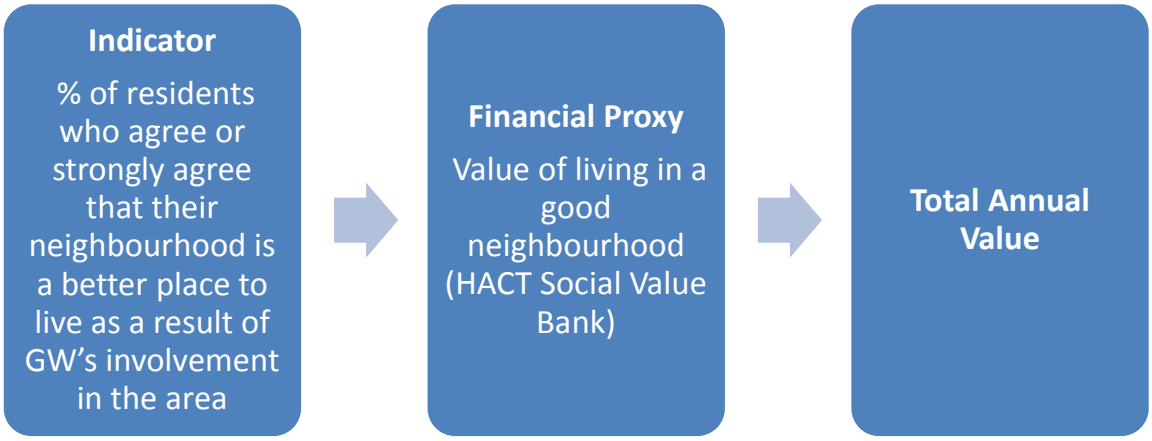


Figure 6: Financial Proxy Example

## Impact

An SROI analysis uses several mechanisms to adequately measure the impact that actions have by taking into account extenuating circumstances. The four that are most commonly used are deadweight, attribution, displacement and discounting, as described in the table below:

| |
|---|
| **Deadweight** - A measure of the amount of outcome that would have happened even if the activity had not taken place. |
| **Attribution** - An assessment of how much of the outcome was caused by the contribution of other organisations or people. |
| **Displacement** – An assessment of how much of the outcome has displaced other outcomes. |
| **Discounting** - The process by which future financial costs and benefits are recalculated to present-day values. |

Figure 7: SROI Impact Definitions

A full list of all of the deadweight measures and their sources can be found in appendix 4. The deadweight measures have been sourced from existing national or regional data sets or are based on an assumed pattern of behaviour from the knowledge we have of the relevant stakeholder. Deadweight is calculated as a percentage of the outcome, which is then deducted from the total quantity of the outcome.

Attribution is calculated as a percentage (i.e. the proportion of the outcome that is attributable to your organisation). The attribution rate across the project has been set at 95%. The rationale for this is that we are confident that no other organisation or peoples have influenced our outcomes as we have been the sole delivery organisation working on the theme of climate resilience on these three estates.

Displacement allows us to consider what other activities or outcomes could have been delivered if the project was not taking place. EU LIFE funding arrangements require project partners to match fund successful projects. As such LBHF contributed £364,822 to the project; this represents 27% of the total funding. For the purpose of this evaluation we have considered this amount as displacement as it would have been used to fund other capital and community engagement programme within the borough.

Discounting is an area of SROI that is the subject of ongoing research. This is especially relevant to projects where investment is in environmental sustainability as future discounting can devalue the well-being of future generations, when in fact the value of environmental outcomes may actually increase over time. For example, discounting the future will mean that our investments in green infrastructure and water sustainability will be "worth less" to a person twenty years into the future than to a person living today. There is a range of discount rates (the interest rate used to discount future costs and benefits to a present value); but to err on the side caution we have used the UK government standard discounting rate of 3% in this SROI[2].

## Social Return Calculation and Sensitivity Analysis

**Duration and Drop-off**

Before the calculation can be finalised a decision has to be made as to how long the changes produced by the project will last.

In an SROI analysis the length of time changes endure is considered so that their future value can be assessed. Most of the benefits gained by stakeholders have either been physical, knowledge based or behaviour related. These benefits are expected to last for longer than the period of activity. Indeed, if there is further engagement in subsequent years, the knowledge or behaviour outcomes may be reinforced.

[2] Cabinet Office, 2012, A guide to Social Return on Investment

For the purposes of this analysis, it is assumed that this is a one-off activity and that any outcomes delivered in year one will exist up to or beyond a five year period. 'Drop-off' is the deterioration of an outcome over time, calculated as a percentage. A 20% drop-off rate each year after the first year has been applied across all outcomes; this has been decided after looking at similar projects which have undertaken an SROI analysis.

**Social Return Calculation**

In all SROI analyses the social return calculation is shown as a ratio of the return on investment. It is derived from dividing the impact value by the investment. The simplified impact map in appendix 6 shows the values for each outcome for each stakeholder, taking in account deductions to avoid overstating the impact of the project. These individual values have been added together and then compared with the investment to produce a social return on investment value of £4.39 for every £1 invested.

**Sensitivity Analysis**

A sensitivity analysis is the process by which the sensitivity of an SROI model to changes in different variables is assessed. Changing these variables helps validate the accuracy of an SROI analysis and the effect of the different assumptions used therein. Below are the changes that were performed to test the SROI model and the results that they led to.

| Base case assumptions | Revised assumptions | Revised SROI Return |
|---|---|---|
| **Attribution rate set at 95%** | **Attribution rate revised down to 50%** | **£2.31** |
| **Drop off rate set at 20%** | **Drop off rate increased to 30%** | **£3.63** |
| **Deadweight measure set at 80% reflecting data found in "Measuring National Well-being: Life in the UK 2015"** | **Change deadweight measure for creating Improved pride in the estate to - Measuring national well-being: Life in the UK: 2016 (ONS) 28% Very high rating of satisfaction with their lives overall** | **£5.15** |

Figure 8: SROI Sensitivity Analysis

Applying the sensitivity adjustments to the assumptions above produces an SROI range of £2.31 to £5.15 for every £1 invested.

## Conclusions and Recommendations

**Conclusions**

The overall social return for this project was calculated at £4.39 for every £1 of investment. While this is towards the higher end of what would be expected, we feel this is an accurate reflection of the project's outcomes considering the project's wide reaching aims and timeframe. The sensitivity analysis reflects that there are some assumptions which change our social return value significantly but the lowest value generated is still above a 1:1 ratio.

This SROI study demonstrates that climate change adaptation measures deliver benefits for local communities beyond alleviating localised flooding. Outcomes measured which reflect how communities feel about their local area returned higher social values when combined together than the respective physical benefits of increased resilience to climate change. It should be noted however that not all physical benefits of the climate change adaptation measures were included within this SROI (i.e. biodiversity improvements and evaporative cooling capacity).

This SROI study also helped us to ascertain and understand the value that local communities place on understanding climate change. 90% of respondents agreed that their knowledge of climate change had been improved by being involved with the project; this was valued as generating £207,385.27 of social return over 5 years. This leads us to believe that the accrual of knowledge and its ability to change behaviour are greatly valued by communities.

This evaluation was also particularly interested in looking at the value of community cohesion. This study enabled us to discover that 34% of residents agreed or strongly agreed that local people got on better as a result of the project. When extrapolated to the whole population (this result represented 437 residents), this resulted in a high social value of £820,133.75 being returned, which is the 4$^{th}$ highest social value out of the fifteen that were measured.

This was the first Groundwork London project to use SROI as an evaluation tool; as such we have generated a significant amount of learning for future applications of SROI to our projects. An important learning point to take forward would be to not underestimate the time it takes to conduct a thorough SROI evaluation. Having a planned SROI stakeholder engagement strategy is essential for any future projects; at the onset of the project the SROI process was very much a part of the project's general stakeholder engagement process but it became evident that a separate approach was required in order to generate the data needed for the SROI assessment.

Overall this SROI evaluation has provided valuable insight into the project that would not have otherwise been evident. It has also allowed Groundwork London to expand its knowledge base into a new area of evaluation; the learning from this process will be applied to other Groundwork London projects.

**Recommendations**

Following this SROI report the following recommendations can be made:

R1 – Social benefit should be given equal weight to physical benefits when planning climate change adaptation projects.

R2 – An SROI analysis should be conducted again on a similar Groundwork project to refine the methods used.

R3 – Planned stakeholder engagement in the SROI process should be delivered as a unique part of a project not just expected to be achieved as a result of other project activities.

R4 – This report should be used as a framework to assist the future development of SROI in Groundwork London's work.

# Appendices

**Appendix 1: Stakeholders identified but not included**

| Stakeholder | Rationale for not including |
|---|---|
| Environmental Service Providers | Outcomes related to environmental services providers such as Thames Water were covered by other stakeholders; we instead decided to include outcomes for this stakeholder under the environment as a whole to avoid double counting. |
| Private Landlords | Difficult to ascertain outcomes for this stakeholder group due to a lack of engagement with the project. |

**Appendix 2: Outcomes identified but not measured**

| Outcome | Rationale for not including |
|---|---|
| Reduction in ambient temperature of the estate makes the estate a more pleasant place to live | Too difficult to measure: data has been collected on the cooling effect of the capital works but how this leads to a reduction in overall estate temperature is unknown |
| Increased biodiversity of the flora and fauna of the estate makes the estate a more sustainable place to live | Difficultly in finding a financial proxy to value |
| Reduction in air pollution leads to health benefits for residents | Data was not collected through the project's environmental monitoring |
| Increases in property values as a result of capital works programme | Property values are subject to many external factors, difficult to separate these from the influence of our project |

**Appendix 3: Financial Proxies**

| Financial Proxy | Source | Value |
|---|---|---|
| Value of living in a good neighbourhood | HACT Social Value Bank: www.hact.org.uk/value-calculator | £1,048.24 |
| Value of talking to your neighbours regularly | HACT Social Value Bank: www.hact.org.uk/value-calculator | £3,909.86 |
| Physical activity reduces the likelihood of developing type 2 diabetes by 50%. The annual average inpatient and outpatient cost of treating type 2 diabetes | Cost of Diabetes: www.diabetes.co.uk/cost-of-diabetes.html | £2,150.00 |
| Median Value of WTP for a view of a green space | Economic benefits of greenspace, Forestry Council: www.forestry.gov.uk/pdf/FCRP021.pdf/$FILE/FCRP021.pdf | £269.00 |
| Value of an increased sense of belonging to an area | HACT Social Value Bank: www.hact.org.uk/value-calculator | £2,251.65 |
| WTP for training course | Training evaluation questionnaire | £115.00 |
| Value of a short term adult education course | Kent Adult Education | £72.00 |
| Value of gardening to participants | HACT social value bank: www.hact.org.uk/value-calculator | £847.00 |

| | | |
|---|---|---|
| Regular volunteering (value to volunteer of unknown age who lives in London) | HACT social value bank: www.hact.org.uk/value-calculator | £2,880.00 |
| Apprenticeship (value to individual of unknown age who lives in London) | HACT social value bank: www.hact.org.uk/value-calculator | £1,048.00 |
| Avoided cost of L.A. spending on local flooding based on expenditure incurred in 2007 flooding event by a single L.A | The costs of the summer 2007 floods in England, DEFRA | £1,687,500.00 |
| Willingness to pay exercise conducted at end of training course | Training evaluation questionnaire | £168.00 |
| Cost of treating household waste water (rate per pound of waste water) | Thames Water Household Customer Charges 16/17 | £0.51 |
| UK Carbon Floor Price (per ton of Carbon) | Government Data | £21.00 |

**Appendix 4: Deadweight Descriptions & Proportions**

| Deadweight description | Deadweight Proportion |
|---|---|
| Very or fairly satisfied with their accommodation and local area - Measuring National Well-being: Life in the UK 2015 | 80% |
| Has a spouse or partner, family member or friend to rely on if they have a serious problem - Measuring national well-being: Life in the UK: 2016 (ONS) | 84% |
| Rate of physical active adults in LBHF as of 2014 (Active People Survey, Sport England) | 64% |
| National % Increase in satisfaction with local area between 2009 - 2014 (ONS) | 4% |
| Agreed/agreed strongly they felt they belonged to their neighbourhood - Measuring national well-being: Life in the UK: 2016 (ONS) | 64% |
| Participation in learning of ages 45 - 54 (NIACE Adult Participation in Learning Survey) | 35% |
| Future intention to take up learning by people who haven't participated in learning since leaving FTE (NIACE Adult Participation in Learning Survey) | 17% |
| Residents have the ability to access funding through HEIP to improve food growing infrastructure without the project | 50% |
| Percentage of young people who volunteer (Community Life Survey 2012/13) | 28% |

| | |
|---|---|
| Without project available apprenticeship placements would have been significantly reduced | 25% |
| LA would have likely funded other flood prevention and climate change adaptation measures | 75% |
| Future intention to take up learning by people who haven't participated in learning since leaving FTE (NIACE Adult Participation in Learning Survey) | 17% |
| LA would have likely funded other flood prevention and climate change adaptation measures | 75% |
| Residents could source products supplied by Green Doctor to save water free from water companies | 75% |
| Natural behaviour change could occur without the intervention of the project but because of residents social economic status this is unlikely without assistance | 10% |

**Appendix 5: Indicators & Sources**

| Indicator | Source |
|---|---|
| % of residents who agree or strongly agree that their neighbourhood is a better place to live as a result of GW's involvement in the area | Resident Evaluation Questionnaire |
| % of residents who agree or strongly agree local people get on better together as a result of Groundwork's involvement in the area | Resident Evaluation Questionnaire |
| % of residents reporting an increase in there use of the green spaces | Resident Evaluation Questionnaire |
| % of residents who feel that the quality of public green space in their neighbourhood has improved as a result of Groundwork's involvement in the area | Resident Evaluation Questionnaire |
| % of residents who agree or strongly agree that their sense of belonging to there area has improved as a result of Groundwork's involvement | Resident Evaluation Questionnaire |
| No. of residents attending core training session | Register of attendance at training sessions |
| % of residents who state that their understanding of climate change has increased through involvement with project | Resident Evaluation Questionnaire |

| | |
|---|---|
| No. of residents attending gardening club regularly | Gardening Club Attendance Record |
| No. of volunteers who volunteered on project for over a month | Volunteer attendance record |
| No. of participants successfully completing apprenticeship scheme | Data collected by Green team/Employment team |
| Retention rate of green infrastructure measures met | Environmental Monitoring – Retention rate met |
| No. of operatives reporting positive outcomes through core training session | Training course evaluation form |
| Retention rate of green infrastructure measures met | Environmental Monitoring - Litres of water retained |
| Yearly water saving figures | Green Doctor Report |
| Yearly $CO_2$ reduction figure | Green Doctor Report |

**Appendix 6: Simplified Impact Map**

| Intended/Unintended Change | Outcomes | Total Annual Value | Value After Displacement, Attribution and Deadweight | Drop Off Rate | Total Value After 5 Years |
|---|---|---|---|---|---|
| **Improved pride in the estate** | Green Infrastructure improvements create a unique place to live, resulting in greater pride in the estate as a whole | £898,969.25 | £124,687.03 | 0.2 | £395,378.02 |
| **People of different backgrounds and ages talk to each other** | Increased social connections improves residents' wellbeing and ability to respond to climate change | £1,701,570.17 | £188,806.23 | 0.2 | £598,697.63 |
| **Increased use and access to green space** | Increased use of green space leads to more physically active and fitter residents needing less medical treatment | £1,265,920.00 | £316,049.59 | 0.2 | £1,002,181.68 |

| | | | | | |
|---|---|---|---|---|---|
| **Improved appearance in green space** | Improved appearance in green spaces improves residents' satisfaction with their neighbourhood | £268,569.60 | £178,802.90 | 0.2 | £566,977.44 |
| **Increased sense of belonging** | Through the capital works and community engagement activities a greater sense of belonging has been created | £1,383,415.73 | £345,383.57 | 0.2 | £1,095,198.67 |
| **Increased skill & knowledge through sustainability training** | Local residents have the knowledge to lessen their vulnerability to climate change | £805.00 | £362.87 | 0.2 | £1,122.50 |

| | | | | | |
|---|---|---|---|---|---|
| **Increased understanding of climate change** | Understanding of climate change means residents are better informed and prepared for the adverse affects of climate change | £82,944.00 | £47,742.98 | 0.2 | £151,391.25 |
| **More resident involved in gardening through gardening clubs** | Increased wellbeing and knowledge through participation in gardening clubs | £12,705.00 | £4,405.46 | 0.2 | £13,969.55 |
| **Volunteers undertake a mutually beneficial volunteering experience** | Volunteering experience benefits the volunteer and enables the project to achieve its outputs | £7,032.00 | £3,511.22 | 0.2 | £11,133.94 |

| | | | | | |
|---|---|---|---|---|---|
| **Green apprenticeship scheme set up as part of the project** | Green Team trainees gain increased employability status through completion of apprenticeships | £15,720.00 | £8,176.37 | 0.2 | £25,926.95 |
| **Housing stock is more resilient against the effects of flooding** | Local Authority incurs less additional expenditure when a flooding event occurs | £1,687,500.00 | £292,570.31 | 0.2 | £927,729.76 |
| **Increased skills & knowledge through maintenance and commissioning training** | Up-skilled workforce able to maintain and commission additional Green Infrastructure work | £3,192.00 | £1,837.33 | 0.2 | £7,301.41 |
| **Green Infrastructure increases amount of surface water absorbed by the estates' green spaces** | Decrease in water pooling and localised flooding on estate which decreases the pressure on the existing drainage system | £787,050.28 | £136,454.84 | 0.2 | £432,693.31 |

| | | | | | |
|---|---|---|---|---|---|
| **Household water efficiency improved through Green Doctor visit** | Reduction in water reaching the sewer system | £681,254.76 | £118,112.54 | 0.20 | £374,530.56 |
| **Household carbon footprint reduced through Green Doctor visit** | Reduction in carbon emissions from housing contributing to climate change | £137,277.00 | £85,681.44 | 0.20 | £271,692.71 |
| | | | Total Benefits | | £5,875,925.38 |
| | | | Total Inputs | | £1,339,608.00 |
| | | | SROI Ratio | | £4.39 |

**Appendix 7: Resident SROI Survey**

## Climate Proofing Social Housing - Project Evaluation Questionnaire

Groundwork London have partnered with the London Borough of Hammersmith & Fulham to install green roofs, swales and rain garden as part of an EU funded project. These feature help urban areas manage water more sustainably, increase biodiversity and general make for a more pleasant living environment.

Estate.....

1. **Did you participate in any of the following project activities?**

| | | | | | |
|---|---|---|---|---|---|
| Gardening Club Sessions | Sustainability Champions Training | Green Doctor Home Visits | TRA Meetings | Consultation Events | Door knocking Survey |

**As a result of Groundwork's involvement on this project do you agree or disagree with the following statements**

2. **Do you feel your neighbourhood is a better place to live?**

| | | | | |
|---|---|---|---|---|
| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |

3. **Do you feel local people get on better?**

| | | | | |
|---|---|---|---|---|
| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |

4. **Do you feel that the quality of public green space in your neighbourhood has been improved?**

| | | | | |
|---|---|---|---|---|
| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |

5. **Do you feel a greater sense of belong in your neighbour?**

| | | | | |
|---|---|---|---|---|
| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |

6. **Has your use of the green spaces on the estate increased?**

| | |
|---|---|
| Yes | No |

7. **As a result of your involvement in the project has your awareness of climate change issues improved?**

| | |
|---|---|
| Yes | No |