

BCR Explanatory Note

Preston Levelling Up Fund: Project 1 - Parks

Summary of assumptions

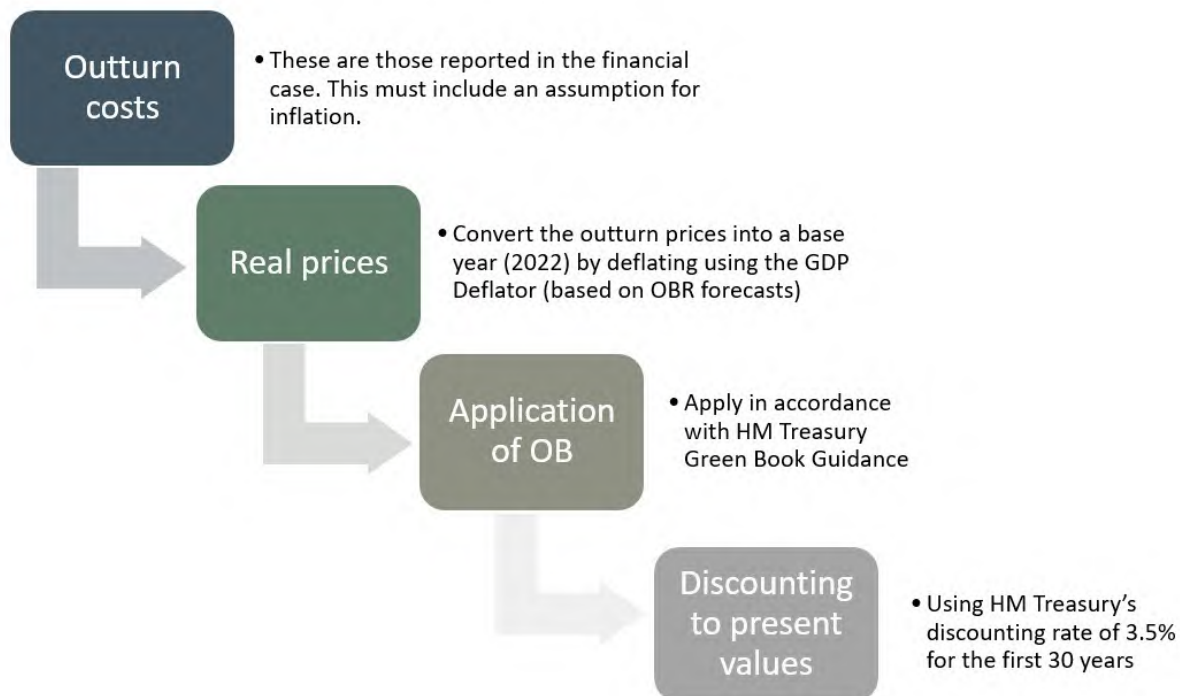
In conducting the economic appraisal, the following general parameters have been used:

- **Geography:** Preston
- **Appraisal Period:** 30-years (persistence period for each economic benefit specified within this BCR Explanatory Note, most benefits have a 10-year persistence period commencing 2025/26).
- **Price Basis:** All costs and benefits are expressed in real 2022/23 prices.
- **Discounting:** All costs and benefits are discounted at 3.5% per annum in line with HM Treasury's Green Book Guidance.
- **Measurement of Benefits and Additionality:** Benefits are measured in terms of net additional terms adjusting for deadweight (the impacts that would occur in the Do Nothing option), displacement, leakage and multipliers where appropriate. Further detail is provided in the additionality section.
- **Optimism Bias:** Optimism Bias has been applied to the capital costs, to account for potential overruns. To estimate Optimism Bias, *HM Treasury's Green Book Supplementary Guidance on Optimism Bias* was followed. The recommended Optimism Bias uplift for the scheme (Standard Building projects) is between 2% and 24%. A full Optimism Bias assessment has been carried out starting at the upper bound and adjusting based on the level of mitigation, with the results showing a mitigation of approximately 66%. A rate of 8.16% has been applied to all costs.

Economic costs

The costs of the proposed scheme have been estimated and align with those set out in the financial case. This covers all capital costs including, construction, design, professional fees, risk/contingency and an adjustment for inflation. In line with HM Treasury Guidance, the scheme costs use the following methodology:

- Estimation of the base cost
- Adjustment to real prices
- Adjustment for optimism bias
- Discounting costs to 2022/23 values



Base Cost

Project 1: Parks will require **£11,438,938** of Levelling Up Fund, public sector co-funding of **£470,000** and **£2,390,000** from private sector contributions. The base costs are broken down by each park but comprise construction costs, contract preliminaries, contractor OH&P, professional fees, surveys & consents, risk/contingency and inflation.

The project includes / does not include any contributions from the private sector, providing a total scheme cost of **£xxx million**. This is consistent with Table C P1 Costing Estimates from the Planning Workbook.

Scheme Costs	Core scenario
Ashton Park	£9,668,499.90
Waverley Park	£1,734,252.42
Moor Park	£2,876,872.50
Grange Park	£19,313.19
Outturn Cost	£14,298,938.00

Outturn Costs

Cost estimates for our Parks project were prepared by Preston City Council's Landscape Design and Neighbourhood Services teams. The breakdown of costs by funding contribution is set out below:

Scheme Costs	Total	2022/23	2023/24	2024/25	2025/26
LUF	£11,438,938	£389,466	£5,145,649	£5,903,823	£0
Other Public Sector	£470,000	£17,622	£452,378	£0	£0
Private Sector	£2,390,000	£0	£175,000	£1,830,473	£384,537
Total Cost (Outturn)	£14,298,398	£407,088	£5,773,027	£7,734,296	£384,527

Real Costs, 2022/23 prices

Inflation was based on the UK Tender Price and Building Cost Indices are as follows:

- Change from July 2022 – March 2023 is 2.02%
- Change from July 2022 – October 2023 is 4.04%
- Change from July 2022 – October 2024 is 8.59%
- Change from July 2022 – March 2025 is 9.59%

Inflation was stripped out from the economic costs prior to entry into the economic model at the following rates:

- 2022/23: £8,060.36
- 2023/24: £224,173.66
- 2024/25: £611,820.64
- 2025/26: £33,649.21

Scheme Costs (£2022,23)	Total	2022/23	2023/24	2024/25	2025/26
LUF	£10,764,394	£381,755	£4,945,837	£5,436,802	£0
Other Public Sector	£452,085	£17,274	£434,812	£0	£0
Private Sector	£2,204,756	£0	£168,205	£1,685,673	£350,878
Total Cost (real)	£13,421,235	£399,028	£5,548,853	£7,122,475	£350,878

Optimism Bias

Optimism Bias has been applied to the capital costs, to account for potential overruns. To estimate Optimism Bias, HM Treasury's Green Book Supplementary Guidance on Optimism Bias was followed. The recommended Optimism Bias uplift for the scheme (Standard Building projects) is between 2% and 24%. A full Optimism Bias assessment has been carried out starting at the upper bound and adjusting based on the level of mitigation, with the results showing a mitigation of approximately 66%. A rate of 8.16% has been applied to all costs.

Category	Metric	Standard Building Contribution	Adjusted Score
Procurement	Late Contactor Involvement.	2	1
	Poor contractor capabilities	9	3
	Dispute and claims occurred	29	6
Project Specific	Design complexity	1	0
	Degree of Innovation	4	0
Client Specific	Inadequate Business Case	34	10
	PM Team	1	1
	Poor Project Intel.	2	0
	Other	0	0
	Public Relations	2	0
	Site Characteristics	2	2
	Other	0	0
Environment / External	Economic	11	11
	Legislation / Regulations	3	0
	Technology	0	0
	Other	0	0
	Total	Total	100
Optimism Bias Adjustment		$34/100 = 0.34 * 24 = 8.16\%$	

After adjustments for Optimism Bias:

Scheme Costs (£2022,23 inc OB)	Total	2022/23	2023/24	2024/25	2025/26
LUF	£11,642,768	£412,906	£5,349,418	£5,880,445	£0
Other Public Sector	£488,975	£18,683	£470,292	£0	£0
Private Sector	£2,384,664	£0	£181,930	£1,823,224	£379,510
Total Cost (inc. OB)	£14,516,408	£431,589	£6,001,640	£7,703,669	£379,510

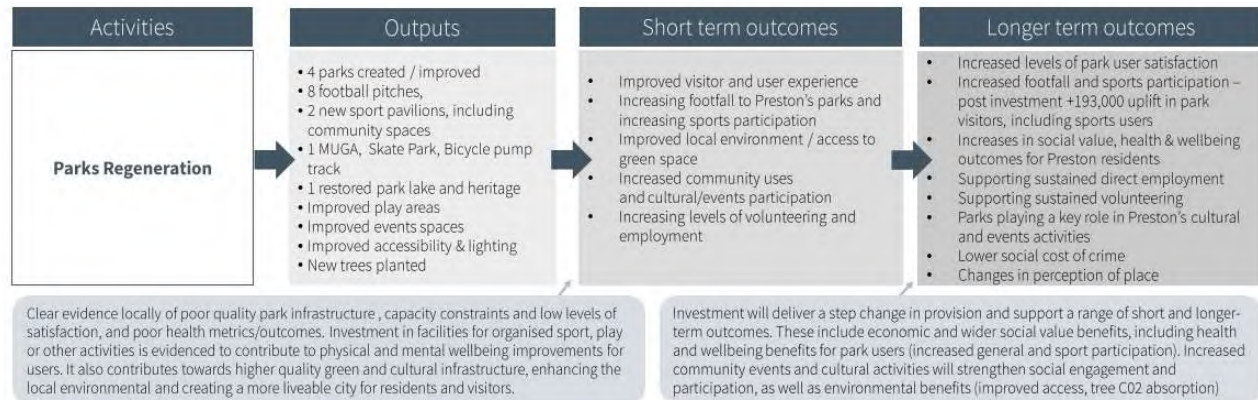
Present Value of Costs

In line with the HM Treasury Green Book, all costs were discounted at a rate of 3.5% per annum.

Scheme Costs (£2022,23 inc OB)	Total
LUF	£11,070,884
Other Public Sector	£473,072
Private Sector	£2,220,073
Total Cost (PVC)	£13,764,028

Economic benefits

In addressing the identified market failures and responding to the issues set out in the Strategic Case, this section of the BCR Explanatory Note sets out the methodology and assumptions for quantifying economic benefits associated with Project 1: Parks. This includes the monetisation of short- and long- term outcomes set out in the Theory of Change.



In order to quantify the economic benefits associated with Project 1: Parks, a robust forecasting model was built on a series of assumptions to determine the VFM being achieved.

All methods and assumptions follow Government publications and guidance, including:

- *HM Green Book (2022)*
- *DLUHC Appraisal Guide (2016)*
- *LUF Round 2 Guidance (2022)*
- *HCA, Additionality Guidance (2014)*
- *HM Treasury, GDP Deflators (2022)*

Initial BCR

The detailed assumptions and methodology for all monetised economic benefits included in the Initial BCR are presented below:

Wellbeing associated with use of local park

The methodology adopted to quantify the wellbeing impacts associated with the use of local parks draws upon the *Fields In Trust, Revaluing Parks and Green Spaces, Measuring their economic and wellbeing value to individuals (2018)*¹ report.

It is stated within this report that: *“While the values elicited in this study cannot be directly translated into cashable benefits, they have been conducted in strict adherence to HM Treasury Green Book guidance to represent the value of parks and green spaces to the local population, and therefore provide a crucial component of the overall business case in favour of these vital spaces. Additionally, we demonstrate the contribution that frequent park and green space use has on the preventative health agenda”.*

Within the Fields In Trust report, it is declared that the wellbeing valuation method enables the difference in life satisfaction observed between park and green space users and non-users to be given an equivalent value in monetary terms – by estimating the amount of money required to keep individuals just as happy or satisfied with life in the absence of the non-market good, in this case the use of parks and green spaces (i.e., to keep their wellbeing constant). As such, it is stated that £974 is the equivalent amount of income per year that an individual would need to replace the increase in life satisfaction they get from using their local park or green space more than once per month -lower bound estimate. This is equivalent to **£8.47 per visit** (2018 prices) (based on the mean number of park or green space visits in the user sample).

In order to apply this monetary value to the uplifted number of visits to Ashton, Waverley and Moor Park in Preston, the baseline number of visits was derived using HUQ² data. Given park usage during COVID-19 restrictions was abnormal, 2019 was used as the base year.

¹ <https://www.fieldsintrust.org/Upload/file/research/Revaluing-Parks-and-Green-Spaces-Report.pdf>

² <https://huq.io/>

The baseline number of visits in 2019 was as follows:

- Baseline Number of Park Visits - Ashton Park: 436,252
- Baseline Number of Park Visits - Waverley Park: 319,639
- Baseline Number of Park Visits - Moor Park: 1,051,723

Strategic Leisure³ were commissioned by PCC to derive a forecast for the uplift in the number of visits to Preston's parks as a result of the LUF interventions. Following a review of the proposed interventions and through assessing the uplift in visits as a result of similar interventions elsewhere in the UK, Strategic Leisure projected a 5% uplift in visits:

- Additional Visits - Ashton Park: 21,813
- Additional Visits - Waverley Park: 15,982
- Additional Visits - Moor Park: 52,586

Within the Fields In Trust report it is stated that: *"we recommend using the lower bound estimate for the wellbeing value of parks and green spaces (£974 per year or £8.47 per visit) for regular park and green space users"*. As such, the lower bound was applied to additional number of visits.

Given the lower bound value was in 2018 prices, this was adjusted to 2022 prices using *HM Treasury, GDP Deflators (2022)*. The 2022 value used in the assessment was £9.38.

The economic benefits of this metric were assessed over a 10-year persistence period commencing 2025/26.

Benefits were discounting at a rate of 3.5% per annum.

Leakage (25%) and Displacement (25%) were applied in line with the Ready Reckoners set out in the *HCA Additionality Guide*.

All visits quantified were expected to be additional, so no deadweight adjustments were required.

Reduction in GP-related medical costs

The methodology adopted to quantify the aggregate exchequer cost savings to the NHS as a result of reduced GP visits draws upon the *Fields In Trust, Revaluing Parks and Green Spaces, Measuring their economic and wellbeing value to individuals (2018)*⁴ report. This study sets out the association between general health and frequency of visit is considerably higher for those who visit their local park or green space more than once a day.

It is stated within this report that: *"While the values elicited in this study cannot be directly translated into cashable benefits, they have been conducted in strict adherence to HM Treasury Green Book guidance to represent the value of parks and green spaces to the local population, and therefore provide a crucial component of the overall business case in favour of these vital spaces. Additionally, we demonstrate the contribution that frequent park and green space use has on the preventative health agenda"*.

Within the Fields In Trust report it is stated that: *"We can therefore calculate the predicted cost savings associated with park or green space usage. Being a park or green space user is associated with a reduction in GP-related medical costs of £3.16 per person per year"* (2018 prices).

In order to apply this monetary value to the uplifted number of visits to Ashton, Waverley and Moor Park in Preston, the baseline number of visits was derived using HUQ⁵ data. Given park usage during COVID-19 restrictions was abnormal, 2019 was used as the base year.

The baseline number of visits in 2019 was as follows:

- Baseline Number of Park Visits - Ashton Park: 436,252
- Baseline Number of Park Visits - Waverley Park: 319,639
- Baseline Number of Park Visits - Moor Park: 1,051,723

Strategic Leisure⁶ were commissioned by PCC to derive a forecast for the uplift in the number of visits to Preston's parks as a result of the LUF interventions. Following a review of the proposed interventions and through assessing the uplift in visits as a result of similar interventions elsewhere in the UK, the following number of visitors were expected to visit the parks more than once a week:

- Additional Users - Ashton Park: 10,906
- Additional Users - Waverley Park: 7,991

³ SLL is a specialist sport, leisure and physical activity consultancy. Established in 1988 they are on the Sport England Framework and work predominantly in the UK public leisure sector <https://www.strategicleisure.co.uk/>

⁴ <https://www.fieldsintrust.org/Upload/file/research/Revaluing-Parks-and-Green-Spaces-Report.pdf>

⁵ <https://huq.io/>

⁶ <https://www.strategicleisure.co.uk/>

- Additional Users - Moor Park: 26,293

Given the value was in 2018 prices, this was adjusted to 2022 prices using *HM Treasury, GDP Deflators (2022)*. The 2022 value used in the assessment was £3.50.

The economic benefits of this metric were assessed over a 10-year persistence period commencing 2025/26.

Benefits were discounting at a rate of 3.5% per annum.

Leakage (25%) and Displacement (25%) were applied in line with the Ready Reckoners set out in the *HCA Additionality Guide*.

All visitors quantified were expected to be additional, so no deadweight adjustments were required.

Participation in sports

The methodology adopted to quantify participation in sports draws upon the *Department for Culture, Media & Sport, Quantifying and Valuing the Wellbeing Impacts of Culture and Sport (2014)* report. The methodology applies the Wellbeing Valuation approach. The Wellbeing Valuation approach has been gaining popularity in the academic literature and is now a recognised methodology in the HM Treasury Green Book.

Within the DCMS report, the value of engagement per sporting activity is stated to be £10.84 (2014 prices). Given the value was in 2014 prices, this was adjusted to 2022 prices using *HM Treasury, GDP Deflators (2022)*. The 2022 value used in the assessment was £12.77.

Strategic Leisure⁷ were commissioned by PCC to derive a forecast for the uplift in the number of participants using the proposed interventions for sporting activities. A more detailed Strategic Leisure methodology is also appended to this LUF application. The Strategic Leisure assessment derived the maximum number of participants that could use the interventions per annum (i.e. limited by number of hours of activities that could be conducted without permanently damaging the playing surfaces).

Based on industry standard and similar interventions elsewhere in the UK, the following number of sporting participants were quantified:

- Number of Additional Participants in Sports - Ashton Park - 3G - 11v11: 21,736
- Number of Additional Participants in Sports - Ashton Park - Grass - 11v11: 2,484
- Number of Additional Participants in Sports - Ashton Park - Grass - 9v9: 2,196
- Number of Additional Participants in Sports - Ashton Park - Grass - 9v9: 2,196
- Number of Additional Participants in Sports - Ashton Park - Grass - 7v7: 2,088
- Number of Additional Participants in Sports - Ashton Park - Grass - 7v7: 2,088
- Number of Additional Participants in Sports - Ashton Park - Grass - 7v7: 2,088

- Number of Additional Participants in Sports - Waverley Park - Grass - 9v9: 2,196
- Number of Additional Participants in Sports - Waverley Park – MUGA: 20,000
- Number of Additional Participants in Sports - Waverley Park – Skatepark: 10,706
- Number of Additional Participants in Sports - Waverley Park - Pump Track: 10,706

The economic benefits of this metric were assessed over a 10-year persistence period commencing 2025/26.

Benefits were discounting at a rate of 3.5% per annum.

Leakage (25%) and Displacement (25%) were applied in line with the Ready Reckoners set out in the *HCA Additionality Guide*.

Given shortfall in provision of sports pitches in Preston, which has been communicated in the Strategic Case, all sports participants are deemed to be to be additional, so no deadweight adjustments were required.

Participation in Cultural Events

The methodology adopted to quantify participation in cultural events draws upon the *Department for Culture, Media & Sport, Quantifying and Valuing the Wellbeing Impacts of Culture and Sport (2014)* report. The methodology applies the Wellbeing Valuation approach. The Wellbeing Valuation approach has been gaining popularity in the academic literature and is now a recognised methodology in the HM Treasury Green Book.

⁷ <https://www.strategicleisure.co.uk/>

Within the DCMS report, the value of engagement per sporting activity is stated to be £46.75 (lower bound) (2014 prices). Given the value was in 2014 prices, this was adjusted to 2022 prices using *HM Treasury, GDP Deflators (2022)*. The 2022 value used in the assessment was £55.08.

Based on a forecast programme of events provided PCC, the additional number of events to be held at Moor Park and Ashton Park post-intervention is 45 and 27, respectively.

HUQ data was utilised to calculate the average total number of attendees at events by assessing event days in comparison non-event days in 2019 (Moor Park +94, Ashton Park +115).

Whilst some events are on a much larger scale, the uplift derived from HUQ data was utilised in a conservative approach.

The number of events was multiplied by the average attendance for each park.

The economic benefits of this metric were assessed over a 10-year persistence period commencing 2025/26.

Benefits were discounting at a rate of 3.5% per annum.

Leakage (25%) and Displacement (25%) were applied in line with the Ready Reckoners set out in the HCA Additionality Guide.

All event attendees quantified were expected to be additional, so no deadweight adjustments were required.

Crime reduction

The methodology adopted to quantify the reduction in anti-social behaviour (ASB) related crimes in Preston's park was the *GMCA, Unit Cost Database (2019)*. The methodology was developed by GMCA and is adopted as supplementary guidance to the HM Green Book.

The number of ASB crimes to occur in the LSOAs that intersected the parks over the past 12-months were obtained from UK Crime Statistics⁸. The proportion of each LSOA covered by park was also estimated.

LSOA	Number of ASB Crimes over past 12-months	Proportion of LSOA covered by Park
E01025306	480	25%
E01025267	51	33%
E01025269	108	33%
E01025231	22	20%
E01025275	139	75%
E01025287	297	33%
E01025284	63	10%
E01025283	38	25%
E01025296	177	33%

The number of crimes occurring in the park was estimated based on the past 12-months the proportion of LSOA covered by the park.

A 10% reduction in the number of ASB crimes was forecast.

GMCA, Unit Cost Database (2019) states the economic cost of each crime is £1,175 (2017 prices). Given the value was in 2017 prices, this was adjusted to 2022 prices using *HM Treasury, GDP Deflators (2022)*. The 2022 value used in the assessment was £1,359.34.

The economic benefits of this metric were assessed over a 10-year persistence period commencing 2025/26.

Benefits were discounting at a rate of 3.5% per annum.

Displacement (50%) was applied in line with the Ready Reckoners set out in the HCA Additionality Guide, to account for crimes that would now be expected to occur elsewhere.

Direct GVA

The methodology adopted to quantify participation direct Gross Value Added (GVA) from employment opportunities draws upon *Annex A2: Place Based Analysis* of the *HM Treasury Green Book* which states place based analysis is required for "proposals with an objective that is specific to a particular place or area or type of area".

The number of additional direct employment opportunities to arise as a result of the proposed intervention were provided by PCC.

⁸ <https://www.ukcrimestats.com/>

Role:	FTEs:
Waverley Park Café	3
Waverley Park Horticultural Maintenance	0.5
Moor Park Serpentine Lake	2.0
Ashton Park Café	3
Ashton Park Social Enterprise	1

The *Lancashire Local Industrial Strategy: Evidence Base (2019)* was used to source GVE per FTE job by sector (2018 prices) values. Given the value was in 2018 prices, this was adjusted to 2022 prices using *HM Treasury, GDP Deflators (2022)*.

Sector	GVA per FTE Job (2018 prices)	GVA per FTE Job (2018 prices)
Accommodation and food	20,528	22,738
Agriculture	34,923	38,682
Wholesale and retail trade	37,760	41,824
Accommodation and food	20,528	22,738
Human health and social work	27,760	30,748

Benefits were discounting at a rate of 3.5% per annum.

Leakage (25%) and Displacement (25%) were applied in line with the Ready Reckoners set out in the HCA Additionality Guide.

All direct FTEs quantified were expected to be additional, so no deadweight adjustments were required.

Social value – Regular Volunteer Opportunities

The methodology adopted to quantify the social value associated with additional regular volunteer opportunities is the *HACT, Measuring the Social Impact of Community Investment (2014)* study. HACT guidance states that “*the values are consistent with HM Green Book*”.

The number of additional volunteer opportunities arising within Preston’s parks were provided by PCC. Some volunteer opportunities arise during delivery as a result of activation activities. As such, benefits were assessed over a 10-year persistence period commencing 2022/23.

Park	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Ashton Park	-	7	33	43	55	55	55	55	55	55
Moor Park	14	18	31	76	106	106	106	106	106	106
Waverley Park	1	2	17	37	82	82	82	82	82	82

The HACT value for a regular volunteering opportunity is stated to be £3,199 per volunteer (2018 prices). Given the value was in 2018 prices, this was adjusted to 2022 prices using *HM Treasury, GDP Deflators (2022)*. The 2022 value used in the assessment was £3,543.

Benefits were discounting at a rate of 3.5% per annum.

Leakage (25%) and Displacement (25%) were applied in line with the Ready Reckoners set out in the HCA Additionality Guide.

Despite only quantifying the additional number of volunteers, a deadweight rate of 19% was applied in line with HACT guidance.

Social value – Member of Social Group

The methodology adopted to quantify the social value associated with being a member of social / community group is the *HACT, Measuring the Social Impact of Community Investment (2014)* study. HACT guidance states that “*the values are consistent with HM Green Book*”.

The number of additional social / community groups to be facilitated within Preston’s parks was provided by PCC. Some social / community groups are expected to emerge during delivery as a result of activation activities. As such, benefits were assessed over a 10-year persistence period commencing 2022/23.

Park	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Ashton Park	-	2	6	14	22	22	22	22	22	22
Moor Park	-	1	11	27	41	41	41	41	41	41
Waverley Park	2	4	6	8	16	16	16	16	16	16

Each social / community group has been assumed to have 10 members.

The HACT value for being a member of social group is stated to be £1,850 per member (2018 prices). Given the value was in 2018 prices, this was adjusted to 2022 prices using HM Treasury, GDP Deflators (2022). The 2022 value used in the assessment was £2,049.

Benefits were discounting at a rate of 3.5% per annum.

Leakage (25%) and Displacement (25%) were applied in line with the Ready Reckoners set out in the HCA Additionality Guide.

Despite only quantifying the additional number of volunteers, a deadweight rate of 19% was applied in line with HACT guidance.

Adjusted BCR

Distributional Impacts

Distributional impacts can be applied when there is a specific focus on a part of the UK where a place-based approach has been undertaken. Wellbeing benefits associated with enhancements at the publicly accessible parks are likely to have a bigger impact on those from lower income households who choose to access public goods more frequently.

For the purposes of the economic appraisal, the income of residents in Preston has been assumed to be in the second quintile based on the *Quintile Groups of all Households Ranked by Equivalised Disposable Income (Based on Weekly Income Before Housing Costs 2015/16)*.

	Bottom	2 nd	3 rd (median)	4 th	Top	Mean
Final Income	244	363	481	638	946	593

Using national gross household income data and assuming this will benefit the second quintile against the median equivalized income, this provided a value of 1.32 which was raised by the power of 1.3. This was applied to all benefits associated with Project 1, excluding crime reduction. Additionality rates have been applied in line with the above assumptions for each indicator.

Value for money assessment

Value for money assessment (£m, discounted, 2022/23 prices)		Core scenario
Economic benefits		
Wellbeing associated with use of local park		£3,702,925
Reduction in GP-related medical costs		£690,746
Participation in sports		£4,377,335
Participation in events		£2,485,945
Crime reduction		£239,214
Direct GVA		£1,179,817
Social value – regular volunteer opportunities		£2,301,008
Social value – member of social group		£4,239,704
Distributional benefits		£8,384,563
Total economic benefits	(A)	£27,601,256
Economic costs		
LUF Fund cost/funding	(B)	£11,070,884
Co-funding	(C)	£473,072
Total public sector funding	(D) = (B) + (C)	£11,543,955
Private sector funding	(E)	£2,220,073
Total economic costs	(D) + (E)	£13,764,028
Initial Benefit-Cost Ratio (BCR)		1.47
Adjusted Benefit-Cost Ratio (BCR)		2.20