

Quarry Bottoms Woodland (working title) Prospectus

Foreword

Up till now, SHARE has been very much focused on projects for providing energy for the here and now. That has included solar generation systems, electricity storage, hydro power studies and firewood ready to use.



This project is a bit bigger in vision, and uses none of the above. It's a time machine. Let me explain by taking you back to 1965 in rural Cambridgeshire. As a seven year old boy in those pre-technology days, a perfect day would include proving that Offa's Brook was *just* the same depth as my wellies, that dock leaves were only partially effective as nettle rash reducers and that the tastiest Victoria plums and Conference pears came straight from the tree in Howlett's Orchard that overhung the lane by the Church. Green stained knees and muddy jeans were the uniform of choice. Rose tinted spectacles? Well maybe, but I am eternally grateful to have had the chance to go rock pool prodding and scrumping; something that seems sadly lacking in childhoods make up today.

That's where the time machine comes in. Let's make a place where all these things are available and accessible to modern families, now and in perpetuity. We'll have a four-acre riverside space for nature to encourage butterflies and grasshoppers; that will grow broadleaf trees for coppicing, incidentally capturing tons of carbon in the process. We aim to plant willows or hazel to encourage the return of Purple Emperors, providing wood for hurdles or crafts; and yes, we hope kids will get muddy and learn about nettles too.

Many of us remember such things from our childhood: it is only fair that today's South Hill youngsters get the same chance.

Geoff Hardman, Chair



A Unique Opportunity

Remember back in 2014 when we got together in the Parish Hall and formed the notion of a Society, centred on South Hill? Those present had the vision of a greener, more sustainable Parish; one which used its resources and the then-available grants to pursue a number of green initiatives. Time marches on and the Society still has that vision.

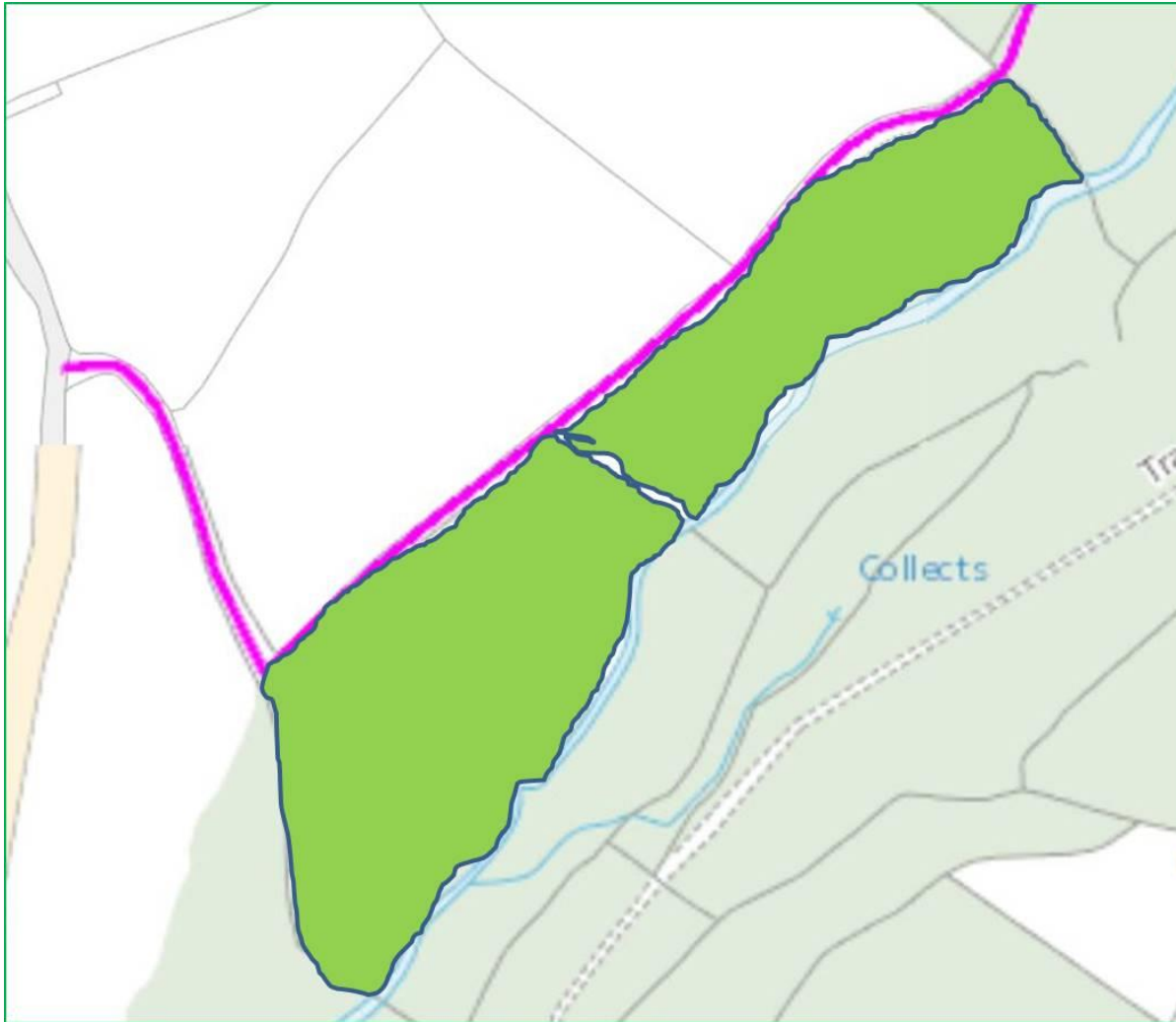
Clearly we needed to make some early financial benefits, so that we could seed other projects as opportunity arose. We've had the luxury of feed in tariffs and electricity sales, that have allowed us to divert the profit from the Church Park Solar installation into community firewood, and a significant recycling initiative, which are now self-supporting. In 2022, a large proportion of the Society's debt for the generation equipment was paid off, leaving only £7,800 to go. Thus the reduction in loan interest and debt leaves much more money available to do more of the "community benefit" that SHARE exists to create. Feed in tariffs may have gone the way of doorstep milk delivery and village post offices, but there is plenty in our Vision still to do.

Imagine South Hill's very own naturalised woodland and nature reserve, with a babbling brook, wildflowers, native broadleaf trees and fruit trees accessible right off the public footpath. A place where free-range children get back to the Countryside, protected forever from any building or development. Imagine a place where the ancient crafts of coppicing and woodland husbandry sit side by side with picnics and adventure. Unnoticed, imagine tons of Carbon being invisibly turned into fuel, fruit and furniture; a place of sustainability for the long term. Imagine all this being done for ourselves.



SHARE has a unique opportunity to acquire a riverside plot of just over 4 acres, sandwiched between the stream below Haye Mill and the public footpath at Trevigro. Historically, this area comprised "Quarry" field and "Bottoms" field, hence our working title, "Quarry Bottoms Woodland". Our vision is to create a naturalised public woodland area with all the features described above, accessible to all forever. The plan is to acquire the land and turn it into an open space mixing wildlife habitat with wildlife trails, coppicing and willow plantation, adding fruiting trees into the mix. Somewhere where dogs and children can run free whilst silently regenerating some of our disappearing environment.

The site is located in the parish of South Hill and therefore accessible to most of the community.



Grid ref: SX34196 69205, 600m south west of Haye Mill. The purple line shows the public footpath, and green signifies the area of Quarry Field [to the left] and Bottoms Field [to the right].

Who and what is it for?

The plot **could** be used for a variety of purposes, and therefore could benefit the whole community of South Hill and nearby parishes. SHARE will commission (grant-funded) feasibility studies, and then enquire among its membership what its preferred use is before making a final decision on the mix of usage, and also the timescale for implementation of these uses. Possible usage includes (please note this list is not exhaustive):

- Wood production. This could be wood for coppicing and firewood, as well as planting specific species (e.g. Willow and Hazel) for craft-making and traditional hedgerow use, or for use in supporting local nurseries. This would also allow us to obtain some financial gain from the site, and ensure the continuance of SHARE into the future.
- Renewable energy. The site could be used for a ground mounted solar system, which we envisage should not exceed 400 panels (approx 600m²). Under the Smart Export Guarantee scheme (SEG) scheme, calculations have shown based on specific customers that this is currently not a viable option to consider. However, there may be other opportunities and only a detailed feasibility study will show if these are viable. SHARE would like to earmark an area for this potential use should future opportunities arise.

- Social amenity. The site is ideally located to create a picnic area, a play- area or an adventure trail. As a Community Benefit Society, SHARE would like to create opportunities that benefit the community as a whole and with its picturesque location, this would be an ideal site.
- Naturalisation of part of the site, as a progressive approach to conservation that includes management for biodiversity and amenity.
- Biodiversity net gain, an approach to development, and/or land management, that aims to leave the natural environment in a measurably better state than it was beforehand. This has a statutory definition in the National Planning Policy Framework. SHARE could be paid by developers elsewhere who have projects which damage the environment. This could be considered a form of environmental ‘greenwashing’, and we are not inclined to support this.
- Carbon credits or Carbon offsetting are schemes whereby businesses can “compensate” for the carbon emissions they are making from their business activities. SHARE believes these are also a form of environmental greenwashing, as described above.
- Grazing. Living in a rural farming community, this is the historic use of the land and could be part of the future management of the land.



What is the benefit to SHARE stakeholders and the wider community?

Due to the success of SHARE’s other ventures, the Society can reward investors with the same vision, as funds to pay interest are generated elsewhere. SHARE as a Society would undertake the acquisition, but it is the whole community who will benefit from the space, with everyone who chooses to be involved by virtue of being a member of SHARE, having an equal say in how the site is used.



Open to all families, responsible dog walkers, countryside lovers; in fact open to everyone in the community. We hope that enough people will share in the vision sufficiently to help us in this endeavour, whether helping us raise funds, plant trees or just enjoy it with us.

Obviously, we will need to raise the finance to purchase the land. What makes this easier is that SHARE's other income streams (such as generation from Church Park or sales of firewood) already mean that we can reward contributors for the use of their capital without worrying about whether Quarry Bottoms makes its own money from the outset. Of course, in the fullness of time, wood sales and coppicing would support the dividends, with the intent that eventually Quarry Bottoms would be self-supporting.

How can we achieve this and ensure financial self-sufficiency?

In the early years, when Quarry Bottoms generates no income, SHARE can still afford to service interest payable on capital in this project. As an example, using Co-operative UK's mantra of "sufficient to attract and retain", then a sensible budget for interest would be somewhere between 2% and a **legally permissible maximum** of 5%. Allocating a capital requirement of £20,000 would therefore suggest interest payments in the range £400 to £1000, easily within the scope of SHARE's available surplus, after taking into account all other expenses incurred by the Society.

Should we choose to do so, a £20,000 debt could be repaid in as little as four years, though it is more likely that we would wish to retain some of our income for other projects.

Investment capital: £20,000
Annual interest at 5% (maximum): £1000

Thus the worst case financially would be that Quarry Bottoms would be at a cost of £1000 per year net outgoing forever.

That is the blackest picture, but it is by no means the most likely. The intention all along is that Quarry Bottoms would eventually return some financial rewards as well as the social and environmental rewards, and the capital will be repaid to investors.

What do we need – costs breakdown

SHARE would like to use the site with a mix of different uses. The idea is to ensure there is something there for anyone in the community, while at the same time supporting SHARE's aim of creating a sustainable future for all.

The main costs for the site include its initial purchase price and cost associated with its intended use. For example, if we were to create a picnic bench and put up an information board, there is an associated cost for the installation and maintenance of this equipment. For financial planning purposes we have created a scenario where 30% of the land is being used for the planting and coppicing of wood as a source of firewood. You can find the detail of this in **Appendix 3**.

Note that many grants are available. Examples include the Big Nature Impact Fund and grants from the Woodland Trust.

Scenario:

As a planning assumption, assume that one third of the area is allocated to planting and harvesting native hardwoods for coppice purposes, to which it is well suited, with the remainder as a mix of open areas, willow and wildlife. To take Hazel as a species as an example, one hectare could be planted with up to 1500 plants.

Based on yield predictions from nativeforestry.co.uk, each planted hectare would produce 3 tonnes per year based on a ten year cycle.

Costs: 1500 Hazel saplings	~£1875
Plus replacements and maintenance	~£325
	~£2000
Yield: 3 tonnes per year = 8.5 dumpy bags @£72	~£615
(based on estimated weight of 350kg per dumpy bag and current price charged by SHARE)	

SHARE would aim to offset the cost of planting with grants which are readily available for tree planting.

For ease of management and coppice rotation, the area could be divided into ten "coupes". Once mature, cutting one coupe per year would give constant regeneration and harvesting. Biggest threat: mammal damage (squirrels, deer).





Apart from the saplings, we would also require volunteers to help us plant and manage the site. SHARE would like to use native species to create a bio-diverse ecosystem, but this will require management for biodiversity and amenity. Volunteers, and a site manager, are crucial to make this happen.

So can SHARE raise the funds necessary to purchase the land, even if the planting grants come later? We believe that if the community supports SHARE's ideas, this will be possible.

Where to start this new project - the Plan

The capital that SHARE would like to raise for this project is in the order of £25,000. As an example, SHARE could allocate funds of £5000 from its reserve, leaving £20,000 to be raised as capital. In the past, SHARE has offered fixed term investment opportunities of over £40,000 to members. This has been comfortably covered by the profit margin from the Church Park PV installation, and will be fully paid off in 2024.

This offering would be a little different, as SHARE would hope to attract longer term investors. Nevertheless, it has been demonstrated that the community has both the finances and the will to enthusiastically support projects of this scale.

When we installed the Church Park solar PV, it was essential that any investment could be paid back sensibly within the life of the equipment (25 years). Of course, a woodland populated with trees, and accessible to all is a completely different project. There will be some maintenance costs, such as a bit of fencing or some replanting or harvesting of the coppice, but it will last forever. So, unlike a new car, or a solar installation, Quarry Bottoms will have an unlimited lifetime. For that reason, it doesn't need to be financed on a fixed term loan repayment scheme, as the land will always have a net value. Consequently, investment is sought that is open ended in terms of timescale, so that all the while investors continue to support Quarry Bottoms, they are rewarded with interest paid from the central budget. Think of it more like an interest only mortgage than a hire purchase plan.

Keeping SHARE secure

SHARE's current activities need to do a few things to keep the Society secure.

Appendix 1 shows our financial health and charts our main sources of income over the last five years.

Appendix 2 shows a table of our regular outgoings.

SHARE's overheads are fairly static, consisting mainly of insurances and servicing the existing revolving credit on our solar installation at Church Park. In return, Church Park has yielded a return averaging £5800 over the past 5 years, and is expected to continue to do so until 2040 and beyond.

In addition, the sale of donated trees processed into firewood has produced about £2500 per year, after taking into account some costs associated with felling, logging and delivering.

Currently, in total, SHARE makes a surplus before interest of around £9800 per year on average. While it wouldn't be sensible to tie this up in just one project, the Society could easily afford to reward investors with interest payments of £1000 per year.

Naturally, investors will need to be able to withdraw their money; it is an investment rather than a donation (although donations would also be welcome). How that would be addressed is that anyone wishing to withdraw their funds would have to give SHARE enough notice to allow their share to be sold on to someone else. So, in the same way as Church Park, there would be a revolving pool of investors, but unlike Church Park, the scheme wouldn't get recycled every two years but would be refreshed as investors' needs change and shares become available.



Appendix 1 – Financial Health Check (based on accounts 2018-2023)

Year	Net Worth	Percentage growth
2018-2019	13117	
2019-2020	15984	21.86%
2020-2021	23764	48.67%
2021-2022	28771	21.07%
2022-2023 (draft)	34132	18.63%
Total		
5-year Mean Average		27.56%
Rounded down		25.00%

Here we can see that SHARE's Net Worth has been growing by an average of 27.56% per year, over the past 5 years.

To be cautious, we would round this down to 25%

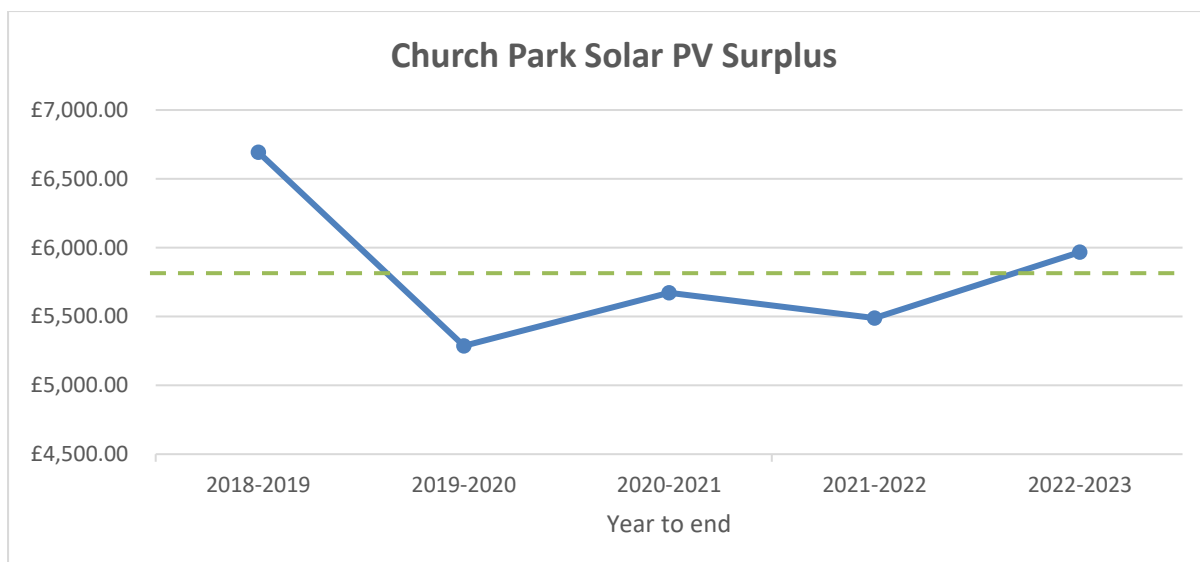
Church Park Solar PV

Year	Net Surplus (EBITDA*)	CHURCH PARK income	Expenditure	Loan Interest	Surplus	% of Net Surplus
2018-2019	£8450	£8658	£678	£1287	£6693	
2019-2020	£9316	£7249	£363	£1599	£5287	
2020-2021	£12042	£7560	£378	£1509	£5673	
2021-2022	£9357	£7246	£347	£1410	£5489	
2022-2023 (draft)	£9895	£7523	£320	£1235	£5968	
Total	£49060	£38236	£2086	£7040	£29110	
5-year Mean Average	£9812	£7647.2	£417.2	£1408	£5822	
Rounded down	£9800				£5800	59.18%

* EBITDA – Earnings before interest, taxation, depreciation and amortization

Here we can see that SHARE's mean average surplus over the past 5 years has been £9812. To be cautious, we round this down to £9800.

We also see that the surplus from the Church Park solar PV project over the 5 years is an average of £5822. This is rounded down to £5800, which is almost 60% of the Net Surplus figure. The income from Church Park is relatively secure, since the Feed-in Tariff and the price we charge for electricity generated are both tied to the rate of inflation until 2036.



Firewood Project

Year	Net Surplus (EBITDA*)	FIREWOOD PROJECT Income	Expenditure	Surplus	% of Net Surplus
2018-2019	8450	1762	217	1545	
2019-2020	9316	3310	357	2953	
2020-2021	12042	4345	562	3783	
2021-2022	9357	3336	566	2770	
2022-2023 (draft)	9895	4638	612	4026	
Total	49060	17391	2314	15077	
5-year Mean Average	9812	3478.2	462.8	3015.4	
Rounded down	9800			2500	25.51%

Here we can see that the Firewood Project (our second largest in financial terms) has generated a surplus over the past 5 years averaging £3015. Because this project is dependent upon supply, volunteers and demand, we have rounded down to £2500, which is about 25% of the Net Surplus figure.

Appendix 2 – Keeping SHARE secure

Below are current estimates of SHARE Overheads (2023)

SHARE Overheads	£	Church Park project ongoing expenses	£
Insurances	175	Loan interest (ends June 2024)	214
Co-ops UK subscription	110	Insurance	175
PR	100	National Grid annual charge	60
Stationery/ postage/ printing costs	50		
Parish Hall (4 meetings @£15)	60		
Totals	495		449
Rounded up to allow for contingencies	520		600
Grand Total = £1200			

Appendix 3 – Coppicing as a source of firewood, financial planning scenario

Assumption: 30% of the land to be used for the planting and coppicing of wood as a source of firewood, which gives us the following model:

Year 1: No income directly from Quarry Bottoms, but the interest paid from funds allocated from SHARE's surplus.

Years 2 - 5: Interest and maintenance expenses, minor replanting of failed saplings, no income directly from the Quarry Bottoms.

Year 6: Interest expense, assume 40% peak yield (1.2 tonnes / hectare)

Year 7: Interest expense, assume 50% peak yield (1.5 tonnes / hectare)

Year 8: Interest expense, assume 65% peak yield (2 tonnes / hectare)

Year 9: Interest expense, assume 80% peak yield (2.4 tonnes/ hectare)

Year 10 and onwards: Interest expense, assume 100% peak yield (3 tonnes / hectare)

	Median	Best Case	Worst Case
Capital:			
Value of shares issued	£20,000	£15,000	£25,000
Interest rate %	3.5	2.75	5
Interest per year	£700	£413	£1,250

Income:

Bag weight (kg)	350	
Bag Price	£64	
Revenue per tonne	£183	
Year 0	No harvest	0
Year 1	No harvest	0
Year 2	No harvest	0
Year 3	No harvest	0
Year 4	No harvest	0
Year 5	No harvest	£0
Year 6	1.2 tonnes	£219
Year 7	1.5 tonnes	£274
Year 8	2 tonnes	£366
Year 9	2.4 tonnes	£439
Year 10 and beyond	3 tonnes	£549

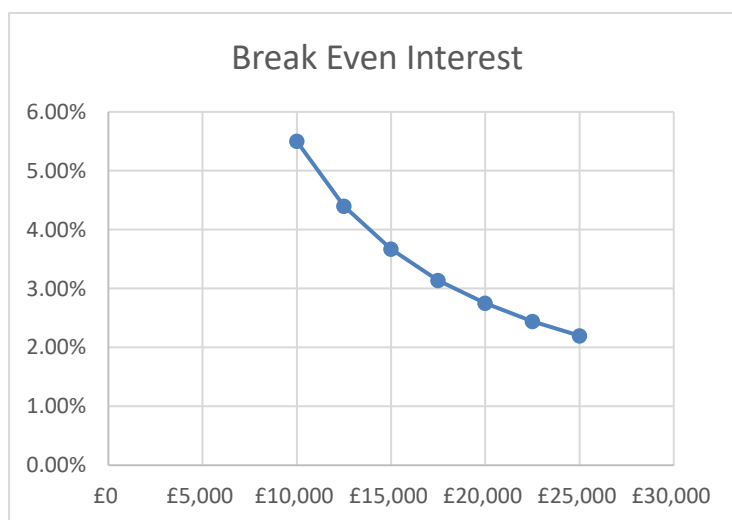
Cost from reserves

	Median	Best case	Worst case
Capital	£20,000	£15,000	£25,000
Interest rate (%)	3.5	2.75	5

Year 0 (balance of purchase price)	£5,000	£10,000	£0
Year 1 costs	£700	£413	£1,250
Year 2 costs	£700	£413	£1,250
Year 3 costs	£700	£413	£1,250
Year 4 costs	£700	£413	£1,250
Year 5 costs	£700	£413	£1,250
Year 6 costs	£481	£193	£1,031
Year 7 costs	£426	£138	£976
Year 8 costs	£334	£47	£884
Year 9 costs	£261	-£26 (surplus)	£811
Year 10 costs	£151	-£136 (surplus)	£701
Beyond	£151	-£136 (surplus)	£701

It would be prudent to aim for self sufficiency as a principle. In order to do that, the cost of interest payments should match the expected income from harvesting by the time the planting comes to maturity. In that instance:

Capital	Break even Interest (year 10)
£ 25,000	2.20%
£ 22,500	2.44%
£ 20,000	2.75%
£ 17,500	3.14%
£ 15,000	3.67%
£ 12,500	4.40%
£ 10,000	5.50%



Using Hazel as a typical example, current costs for saplings:

- 60cm bare rooted for planting in winter @125p each: £1875 per hectare plus rabbit guards @£290 per 420, totalling £2910 per hectare (figures from Woodland Trust, prices from other suppliers may vary)

Notes on species of wood can be found at www.nativeforestry.co.uk

Firewood chart - https://www.stovesonline.co.uk/woodburning_chart.html