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ADUR & WORTHING
COUNCILS

22 February 2021

Joint Strategic Committee

Date:	**2 March 2021**
Time:	**6.30 pm**
Venue:	**Remote Meeting via Zoom**

Committee Membership:

Adur District Council: Councillors; Neil Parkin (Adur Leader), Angus Dunn (Adur Deputy Leader), Carson Albury, Brian Boggis, Emma Evans, David Simmons and Kevin Boram

Worthing Borough Council: Councillors; Daniel Humphreys (Worthing Leader), Kevin Jenkins (Worthing Deputy Leader), Edward Crouch, Heather Mercer, Elizabeth Sparkes and Val Turner

Agenda

Part A

1. Declarations of Interests

Members and officers must declare any disclosable pecuniary interests in relation to any business on the agenda. Declarations should also be made at any stage such an interest becomes apparent during the meeting.

If in doubt contact the Legal or Democratic Services representative for this meeting.

2. Minutes

To approve the minutes of the Joint Strategic Committee meeting held on 9 February 2021, copies of which have been previously circulated.

3. Public Question Time

To receive any questions from members of the public.

Questions should be submitted by **noon on Friday 26 February 2021** to Democratic Services, democratic.services@adur-worthing.gov.uk

*(**Note**: Public Question Time will operate for a maximum of 30 minutes)*

4. Items Raised under Urgency Provisions

To consider any items the Chairman of the meeting considers to be urgent.

5. 3rd Revenue Budget Monitoring Report (Q3) (Pages 1 - 34)

To consider a report from the Director for Digital, Sustainability & Resources, a copy is attached as item 5.

6. 3rd Quarter Capital Investment Programme & Projects Monitoring 2020/21 (Pages 35 - 60)

To consider a report from the Director for Digital, Sustainability & Resources, a copy is attached as item 6.

7. Carbon Neutral 2030 - Worthing Heat Network (Pages 61 - 162)

To consider a report from the Director for Director for Digital, Sustainability & Resources, a copy is attached as item 7.

8. Adur District Council - Housing Revenue Account (HRA) Capital Programme 2021-2023 (Pages 163 - 172)

To consider a report from the Director for Communities, a copy is attached as item 8.

Part B - Not for Publication – Exempt Information Reports

None.

Recording of this meeting
The Council will be voice recording the meeting, including public question time. The recording will be available on the Council's website as soon as practicable after the meeting. The Council will not be recording any discussions in Part B of the agenda (where the press and public have been excluded).

For Democratic Services enquiries relating to this meeting please contact:	For Legal Services enquiries relating to this meeting please contact:
Neil Terry Democratic Services Lead 01903 221073 neil.terry@adur-worthing.gov.uk	Andrew Mathias Senior Solicitor 01903 221032 andrew.mathias@adur-worthing.gov.uk

Duration of the Meeting: Four hours after the commencement of the meeting the Chairperson will adjourn the meeting to consider if it wishes to continue. A vote will be taken and a simple majority in favour will be necessary for the meeting to continue.

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ADUR & WORTHING
COUNCILS

Joint Strategic Committee
2 March 2021
Item 5

Key Decision: No

Ward(s) Affected: All

3rd Revenue Budget Monitoring Report (Q3)

Report by the Director for Digital, Sustainability & Resources

Executive Summary

1. Purpose

1.1 This report updates the Joint Strategic Committee with the latest expenditure and income projections for each Council in the current financial year 2020/21, compared to the Revenue Budget approved by both Councils in February. Whilst the 'spend to date' will be the position as at 31st December 2020, the forecast position will reflect the latest information available to ensure an up-to-date forecast is presented.

The Coronavirus pandemic has had a significant impact on the financial performance of the Councils with the pressure of both additional expenditure and reduced revenue income. These financial strains are reflected in the quarter 3 outturn projection for the 2020/21 financial year with net operational budget overspends predicted of £1,157,000 in Adur and £3,914,000 in Worthing. The government has recognised this pressure and provided funding to local authorities in the form of grants and the Income Guarantee Scheme. After allowance for the offsetting of this support funding it is currently estimated that the outturn position will be a net underspend of £223,000 in Adur and £13,000 in Worthing. A breakdown is set out in section 4.4 of the report.

1.2 The following appendices have been attached to this report:

(i) **Appendix 1** (a) Adur Summary
(b) Adur Use of Earmarked Reserves

(ii) **Appendix 2** (a) Worthing Summary
(b) Worthing Use of Reserves

(iii) **Appendix 3** HRA Summary

(iv) **Appendix 4** (a) Table of Variations - Forecast to Budget
(b) Table of movements over £50,000 between Quarters 1 and 2

2. Recommendations

2.1 The Joint Strategic Committee is asked to note the report and projected outturn position for the Joint Committee, Adur District Council and Worthing Borough Council against the approved revenue budgets and proposed use of reserves (Appendix 1b and 2b).

3. Context

3.1 The Joint Strategic Committee considered the 5-year forecast for 2020/21 to 2025/26 on 1st December 2020.

3.2 This report outlined the financial context, and updated the outline 5 year forecast, the key budget pressures and the savings proposals for addressing the budget gap for Adur and Worthing Councils. The report built on the strategy first proposed in 2016/17 whose strategic aim was to ensure that the Councils would become community funded by 2020 reliant, by then, only on income from trading and commercial activities, council tax income and business rate income.

3.3 The successful delivery of the strategy is fundamentally changing how the Councils are funded. The Councils are moving increasingly away from ever reducing government funding towards funding from the local community via Council Tax and Business Rates, and will become increasingly reliant on income from commercial activities.

4. Issues for consideration - Revenue 2020/2021 Forecast

4.1 As part of the 2020/21 budget the Councils committed to savings of £1.379m for Adur District Council and £2.483m for Worthing Borough Council to produce a balanced budget and to address the reduction in Government support. Services were required to carry out efficiency, procurement and base budget reviews to identify where income could be increased or expenditure reduced. Current budget monitoring indicates that the majority of these savings are being delivered as expected.

4.2 However, the financial landscape has changed due to the emergence of the Coronavirus. The impact of the measures implemented to manage the pandemic has been visible in both the fall in income and the additional cost pressures falling on the Council. The Government has provided support to Councils in the form of grant funding, some grants are designated for specific use, such as homelessness support, other grants are non specific. In July the government recognised the pressures faced by local authorities related to lost income from fees and charges, and announced its support in the form of an income guarantee scheme.

The scheme compensates local authorities for 75% of any losses in sales, fees and charges income over the first 5% of the associated budgets. Claims take the form of 3 online submissions in September, January and April, with the final one being a reconciliation payment. Two claims have now been submitted for the period April to December 2020 with payments received totalling £261,412 for Adur and £1,259,775 for Worthing. Based on current forecast losses it is estimated that total compensation funds of £400,000 for Adur and £2.1m for Worthing will be received for 2020/21, this does however directly correlate to level of losses and therefore the estimate may change as we approach the end of the financial year.

In summary the current 2020/21 Covid 19 related government funding forecasts for Adur and Worthing are:

General Government Funding:	Adur £	Worthing £	Total £
Covid-19 Emergency Grant:			
- Tranche 2	635,277	1,099,477	1,734,754
- Tranche 3	102,440	175,159	277,599
- Tranche 4	174,454	290,888	465,342
New Burdens Funding	188,500	188,500	377,000
Sales Fees and Charges Income Guarantee Scheme	400,000	2,100,000	2,500,000
Unallocated New Homes Bonus	0	252,460	252,460
Total non specific funding	**1,500,671**	**4,106,484**	**5,607,155**
Specific - Within Service:			
Hardship Funding	453,179	709,577	1,162,756
Homelessness support	1,500	9,750	11,250
Reopening High Streets Safely	56,760	98,170	154,930
Covid-19 Compliance and Enforcement	29,140	49,825	78,965
Total service specific funding	**540,579**	**867,322**	**1,407,901**
Total	**2,041,250**	**4,973,806**	**7,015,056**

*Tranche 1 Covid Funding was received in 2019/20

4.3 The forecast year end position is a net operational overspend by services, before general government Covid-19 related funding, of £1.157m in Adur and £3.914m in Worthing. This includes meeting the challenges of the impact of the covid-19 pandemic on cost pressures and levels of income together with the significant savings requirements to balance the 2020/21 budget. The main factors influencing the level of spend are discussed in detail in section 4.12 of the report.

4.4 The current year-end forecasts are comprised of a number of elements as set out in the table below:

2020/21 Forecast Outturn	Adur £000	Worthing £000
Over/(under)spend in operational services – including share from Joint	1,157	3,914
Reduced borrowing requirement: A lower than forecast call on the MRP (provision to repay debt) and net interest in 2020/21, due to reprofiling of the capital programme.	(152)	(533)
Commercial property income shortfall and cost pressure	190	668
Use of property void allowance	(200)	(250)
Section 31 - additional grant	(3,730)	(6,316)
Local tax income guarantee grant	(482)	(920)
Net over/(under) spend before Transfer to Reserves	(3,217)	(3,436)
Transfers to Local Tax Smoothing Reserves	4,212	7,236
Transfers to Earmarked reserves	284	294
Net over/(under) spend before Government funding support	1,278	4,094
Additional Unallocated New Home Bonus	-	(252)
Government Covid 19 Grant Funding	(1,101)	(1,755)
Sales, Fess and Charges Guarantee Scheme	(400)	(2,100)
Forecast net over/(under) spend	(223)	(13)

4.5 The key factors underpinning the current financial position include:

- The financial impact of the Coronavirus pandemic, both additional cost pressures and reduced income levels, net of financial support from the government.

- An underspend in the Minimum Revenue Provision (MRP) and net interest budgets for Worthing Borough Council. The budgets are calculated on both the historic financing of previous years' capital programmes and the impact of financing the current year's capital spend. Changes to the expected spend, interest rate forecasts, and the associated level of borrowing have reduced the expected cost in 2021/22.

- Shortfall in commercial and strategic property income with the requirement to use the property void allowance to manage the pressure.

- Government section 31 grants received to compensate Councils for HM Treasury decisions relating to Business Rate reliefs. A number of additional reliefs have been introduced in 2020/21 to help businesses during the Covid-19 emergency. Although additional grants are paid in 2020/21 the impact of these decisions on business rates income will not hit the general fund until 2021/22. The amounts are significant, £3.7m in Adur and £6.3m in Worthing and it will therefore be necessary to transfer these additional funds to the business rates smoothing reserve to manage the volatility of the cash flow impact of the timing difference within the Business Rates mechanism in future years.

Once the above items are taken into account, the operational position is a net overspend by services of £1.157m in Adur and £3.914m in Worthing. This projection demonstrates the pressure on the Councils finances as a result of Covid-19 and the need for funding support from the government.

4.6 In summary the overall revenue outturn projections reported for Q3 are as follows:

Summary of 3rd Quarter Budget Monitoring Report			
	Joint	**Adur**	**Worthing**
	£000s	**£000s**	**£000s**
Original Budget 2019/20	24,004	7,582	13,995
Projected outturn	24,630	4,365	10,559
Projected Forecast over/ (underspend) before Government support packages or any transfer to reserves	**626**	**(3,217)**	**(3,436)**
Transfer to Local Tax Smoothing Reserves		4,212	7,236
Transfer to Reserves -Wellbeing & Environmental Health grants		284	294
Projected Forecast over/ (underspend) after transfers to reserves (before Government support and additional New Homes Bonus)		**1,278**	**4,094**
Additional Unallocated New Homes Bonus		0	(252)
MHCLG - Government Grant Funding		(1,101)	(1,755)
MHCLG - Income guarantee funding (Estimated)		(400)	(2,100)
Projected Forecast over/ (underspend) after Government funding and proposed transfer to reserves	**626**	**(223)**	**(13)**

4.7 Comparison to the Q2 forecast:

	Joint	**Adur**	**Worthing**
	£000s	**£000s**	**£000s**
Forecast Over/(under)spend Q3	626	(223)	(13)
Forecast Over/(under)spend Q2	577	(346)	9
Change from Q2 to Q3 (improvement)/deterioration	49	123	(22)

The Adur and Worthing projected forecasts in the table above include the respective share of the Joint Services projected overspend. Details of the larger movements over £50,000 from quarter 2 to quarter 3 within revenue budgets are highlighted in appendix 4b.

4.8 In the table below, projections have been separated between authority and by Income and Expenditure, to indicate the level of overall under/overspend of costs and the over/under achievement of income targets. The figures are after the transfer of section 31 grants, local tax guarantee grants and unused Public Health and Wellbeing grants are transferred to reserves:

	Expenditure	Income	Net Total
Joint	**£'000**	**£'000**	**£'000**
Budget	29,173	(5,169)	24,004
Forecast (after transfer to reserves)	30,060	(5,430)	24,630
Projected Forecast (Under)/ Overspend	887	(261)	626
Forecast variance % before Government funding	3.04%	5.05%	2.61%
Adur	**£'000**	**£'000**	**£'000**
Budget	35,477	(27,895)	7,582
Forecast (after transfer to reserves)	35,021	(26,411)	8,610
Authority Projected Forecast (Under)/ Overspend	(456)	1,484	1,028
Share of Joint (Under) / Overspend	355	(104)	250
Authority Projected Forecast (Under) / Overspend	(101)	1,379	1,278
Forecast variance % before Government funding	-0.28%	-4.94%	16.86%
Worthing	**£'000**	**£'000**	**£'000**
Budget	64,802	(50,807)	13,995
Forecast (after transfer to reserves)	65,242	(47,529)	17,713
Authority Projected Forecast (Under)/Overspend	440	3,278	3,718
Share of Joint (Under) / Overspend	532	(157)	376
Authority Projected Forecast (Under)/ Overspend	972	3,122	4,094
Forecast variance % before Government funding	1.50%	-6.14%	29.25%

4.9 The Joint Strategic Committee (JSC) is asked to consider:-

- the current projections of variances in the two Councils' General Fund Revenue Budgets:
- the current projections of variances in the Adur Housing Revenue Account; and
- any amendments and virements to budgets for each Council which may require a recommendation onto Council for approval;

4.10 We adopt a more structured approach to services which have more volatile budgets or hard to predict income streams. For 2020/21, these services are:-

- Car Parking
- Bereavement Services
- Commercial income from Property
- Homelessness
- Commercial Waste
- Development Management
- Cross cutting services including maintenance and utilities

4.11 Most of these services are subject to closer monitoring because they meet one or more of the following criteria:-

- Demand led
- Income based
- Specialist
- Significant changes to the service are being made in the near future.

4.12 <u>Headline budget variations across both the Councils' and the Joint account</u>

4.12.1 <u>Car Parks</u>

As has been previously reported car park income has been directly affected by the Covid-19 pandemic with demand reducing significantly during the government imposed lockdowns and restrictions. This has been particularly evident in Worthing due to the nature of the use of the car parks. As at quarter 3 the forecast income shortfall is £185,000 in Adur and £1,890,000 in Worthing, which is comparable with the quarter 2 projection.

In Worthing actual income revenue was £1.3m below budget from April to December. The year end projection assumes that there will be a gradual increase in demand over the final months of 2020/21 as the Covid 19

restrictions are eased, reaching 27% budgeted capacity by the end of March which is in line with the levels reached in June after the first lockdown. The government advice to work remotely where possible has, and will potentially continue to have, a negative impact on the worker deal income in Worthing, resulting in a shortfall of £22,000 per month if demand levels are maintained at around 44%.

In Adur, the shortfall in income from April to December was £127,000. The car parks saw demand start to recover over the mid summer months to a peak of 93% in September. However, demand started to drop again following further lockdown restrictions being imposed. As with Worthing the assumption is that the usage levels gradually return to the levels experienced following the first lockdown and reach 76% by March 2021.

Shortfalls in car park income will be covered by the income guarantee scheme. The Council will be compensated by 75% of loss over and above the first 5%. However there will still be a loss of an estimated £435,000 to be managed within the Worthing budget and £72,000 in Adur.

Overall, the net parking overspend against budgets including both income and expenditure items is £138,000 in Adur and £1.888m in Worthing.

4.12.2 Housing Needs

In Worthing there has been a direct impact seen from Covid-19 with the number of households in temporary accommodation being typically between 170 and 186 during the first quarter of the year, up from a figure of 133 in March. In the second quarter these numbers did start to reduce to an average of 161 in September, but have since increased month on month to the current level of 189 cases. It is anticipated that the service may see another increase in demand when both the current prohibition on evictions and furlough schemes come to an end, together with an increase in Domestic Abuse which has resulted in the commissioning of a temporary additional refuge by West Sussex County Council for use by all West Sussex Districts and Boroughs. However, an additional contingency of £100,000 was built into the budget to address ongoing costs pressures, the Local Housing Allowance rate has increased since April 2020 and the Housing Service has successfully sourced cheaper temporary accommodation. Furthermore, a successful bid for the Next Steps Accommodation Programme secured £234,423 of funding for sustained accommodation for those at risk of rough sleeping and accommodated due to Covid-19.

In Adur the service is projected to underspend. The combination of higher LHA rates, the sourcing of cheaper temporary accommodation and the average caseload figures marginally decreasing, means the full budget may

not be required, however the issues around delayed possession proceedings may impact and reduce the current forecasted underspend. The caseload numbers have increased from an average of 45 in April to 57 over December and January. The Next Steps Accommodation Programme bid secured £27,868 of funding.

The Councils have been allocated a small amount of funding for homelessness issues, Adur £1,500 and Worthing £9,750 which are factored into the outturn projections.

In addition there is Homelessness Reduction Grant allocated to Adur £75,000 and Worthing £124,000. This is new burdens funding associated with the Homelessness Reduction Act. In Worthing this may be utilised to offset any overspend.

	Adur	**Worthing**
	£000	£000
Homelessness - Emergency and temporary accommodation costs - budget pressure/(underspend)	(191)	957
Local Housing Allowance Income - budget shortfall/(excess)	97	(639)
Next Steps Accommodation Programme Funding	(27)	(234)
Emergency Funding - Homelessness	(2)	(9)
PSL budget Over/(underspend)	30	6
MHCLG Homelessness Reduction Grant (New Burdens associated with the Homelessness Reduction Act)	(75)	(124)
Net over/(under)spend forecast against budget	(168)	(43)

Overall the budget for Housing Needs is forecast to be underspent in Adur by £168,000 and Worthing by £43,000.

4.12.3 Environment - Waste and Recycling

Income for green waste has increased with an increase in demand during the year, a probable explanation being that more people were at home during the lockdown period combined with a robust promotional campaign for the service and easier availability via digital customer self-service. Currently it is predicted that the refuse and recycling income will be £62,000 above budget. However, there are overspends anticipated of £141,000 which will offset this mainly related to repair and maintenance of vehicles, a particular pressure arising from warranty periods expiring. In addition, there

will be projected staff overspends of £311,000 which are included within the vacancy provision monitoring. There is insufficient budget for agency staff in this service which has been addressed in the 2021/22 budget with an increase of £150,000, there have also been extra cost pressures in 2020/21 with cover required to fill resource gaps resulting from self isolation and shielding during the pandemic. The Cleansing service is projecting an overerspend of £12,000 this includes £18,000 staff underspends that are included within the vacancy provision forecast.

Commercial Waste has seen a drop in income due to the impact of Covid-19 on local businesses and changes their demand for the service. Business did start to pick up again in the second quarter but the service has felt the legacy of the initial period of lockdown and now the additional effect of the current restrictions. The prediction is a shortfall in income of £68,000 in Adur and £194,000 in Worthing. Partially offsetting this are projected underspends on disposal and equipment costs £32,000 in Adur and £78,000 in Worthing. In addition there are cost pressures of £21,000, relating mainly to the vehicles. This is a demand led service and sensitive to changes in customer need, there has been, and continues to be, additional volatility due to the Covid-19 pandemic as businesses react to the changeable situation. Compensation for a proportion of the net income shortfall is being received through the Sales, Fees and Charges scheme.

The high-demand for commercial waste account changes, relating to Covid-19 affected local businesses, has put added strain on a largely manual process for day-to-day customer account management and billing. There is now renewed focus by the Commercial and Digital teams to fully automate customer account changes, which will dramatically reduce the time taken from account change to the issuing of the customers' bill, facilitating quicker income recovery.

4.12.4 Environment - Bereavement Services

The Bereavement Service is projecting to be overspent against budget in 2020/21 £58,000 in Adur and £226,000 in Worthing overall.

The crematorium income is below budget, a large factor being the proportional shift in direct delivery cremations compared to full services. This is further compounded by a shortfall in memorial income, which is due to the Coronavirus Act 2020 requiring cremation and burial authorities to focus solely on cremation and burial during the pandemic. Forecasts indicate that there will be a shortfall in income in 2020/21 of £53,000 from cremations and £45,000 from memorials including the memorial garden. This will be partially offset by £19,000 additional income associated with tributes. In addition to this there are cost pressures of £78,000 which

includes the investment in the media system of £47,000. There have also been additional staff costs of £47,000 that are included within the vacancy provision figures, these relate to extra resources resulting from Covid -19 pressures and the need to increase capacity.

Back in May 2020, the price list for Direct Cremations, a service used mainly by Sussex-based funeral directors (FDs) were streamlined, to reduce the gap between the price bandings. Covid-19 social gathering restrictions have reinforced a national trend towards on-premises chapel services, so it is expected that this will continue to grow with a reduction in the use of Worthing Crematorium's Kingswood and Muntham Chapels. Recognising this shift in the market, the price charged for Direct Cremation will be offered at a further Small Business Concession (SBC) rate, to those FDs who commit to a minimum booking number during a rolling one-year period, from January 2021. Sound FD relationships are essential to the success of this new approach. Therefore, all those who wish to take advantage of the new reduced rate will need to sign-up to revised terms and conditions, as directed by their Bereavement Services account manager. It is expected that this change will be largely seen as a positive step for smaller funeral director businesses, in a highly competitive market space.

The time between services has been extended to allow for thorough cleaning between services during the pandemic. This has been a popular change with the length of the service remaining the same at 40 minutes and 20 minutes for cleaning, it also provides a buffer between services entering and exiting the chapels. Engineers have been engaged to progress the hard landscaping for the extension to the private garden, which will provide approximately 280 rockery plots, 412 burial capacity in ribbon gardens and 912 capacity in private gardens.

Worthing cemeteries is forecasting additional income of £13,000 although this is offset by expenditure pressures of £35,000, including additional unbudgeted costs associated with Covid 19, that are funded from government funding. In Adur, cemeteries are projected to overspend by £58,000, a combination of a shortfall in income from burials £40,000 and additional cost pressures £18,000.

4.12.5 Environment - Parks and Open Spaces

The service has seen a reduction in income associated with outdoor sports and car boot events in the last quarter and predicted overspends on expenditure relating to repairs, maintenance and utilities. Worthing is also projecting an overspend of £62,000 a combination of income shortfall £44,000 and cost pressures of £18,000.

Within the Foreshores service there is a projected shortfall of income from beach huts and chalets in Adur £13,000 and Worthing £41,000 for 2020/21. These are offset by savings within the repairs and maintenance expenditure budgets. There are also £39,000 staff vacancy savings within the service reported within the vacancy provision.

Overall the net projection for Parks and Foreshores including expenditure are overspends in Adur £29,000 and in Worthing £39,000.

4.12.6 Planning & Development

Current projections are that the 2020/21 budgets will not be achieved in the Planning and Development service areas overall. Development Management is projected to be below budget by an estimated £30,000 in Adur and £40,000 in Worthing, previous projections had assumed a number of large applications would be received by the end of March which are now not expected until 2021/22. This is despite planning applications exceeding 2,000 in a calendar year for the first time since 2010. In Worthing the position is offset by an underspend in expenditure of £30,000. There are staffing cost pressures included in the vacancy provision monitoring of £30,000.

There are projected shortfalls in Building Control income of £73,000 in Adur and £76,000 in Worthing. The service area has been impacted by a slow down in activity as a result of Covid-19 with a significant reduction in applications received and all construction sites closed in the first lock down period. There are staffing cost pressures included in the vacancy provision monitoring of £28,000.

Land Charges income is predicted to be below budget by £40,000 in Adur and £43,000 in Worthing. The service areas have been impacted by a slow down in activity as a result of Covid-19 although the stamp duty holiday helped increase workload and income levels during the summer/autumn period. There are also some offsetting savings against expenditure budgets of £9,000 and £21,000 respectively.

4.12.7 Major Projects and Investment

The Major Projects team has actively been working on a number of development sites and investments across the areas. The nature of these projects inevitably spans over a number of budget years and commissioning timetables vary according to projects' complexity and challenges that arise from market forces, public engagement, and viability issues. The effect of this is that projects have an uneven spend profile often with large amounts of money being paid over short time periods, currently it

is anticipated that the expenditure within this area will be marginally over budget by £6,000. Within this projection are £45,000 staff costs that were expected to be met from capital that will need to be funded from revenue.

Commercial and strategic property income has seen the impact of the Covid 19 pandemic with a forecast shortfall in income within Worthing of £300,000. Current forecast assumptions indicate that any rental shortfalls can be managed initially through use of the in year budgeted void allowance (£250,000) and any further shortfall by use of the property void reserve. In Adur the income from the strategic property portfolio is predicted to have a shortfall of £250,000. This is offset by the void allowance so that it exceeds the budget by £100,000. Of the strategic Investment Portfolio, Adur has seen one of its tenants announce they have gone into administration (this tenant makes up 2.6% of the total portfolio income) and work is under way to re-let this premises. In addition, it is forecast that there will be costs associated with this administration, void periods including rates prior to re-let that are expected to be £90,000 and £118,000 in Adur and Worthing respectively.

In Worthing, whilst rent collection has performed well to date, the council owned retail premises on Montague Street continue to present a risk to income. Of the five retail premises, Four have closed through entering administration and one has re-opened having left administration. Work is underway to activate and occupy these spaces with new tenants, without prejudicing any wider regeneration plans for the Grafton Multi Storey Car Park. The Council has responsibility for the Business rates on two of these properties at a cost of £62,000.

Pressure across both portfolios is being felt on car parking investment assets leased to third party operators. This is not dissimilar to the councils' own car parking income. Whilst no agreements have been reached, with the increase in parking demand and the ongoing active dialogue with the tenant's representative, officers are keeping the rent payment position under constant review in light of government guidance (The Code of Practice for the Commercial Property Sector) and the Coronavirus Act 2020

Across both councils a number of tenants have approached the Council requesting rent free periods and payment support. The Property & Investment team are in dialogue with clients where possible and reviewing all the information available to form any decisions, supporting local businesses where possible with moves to monthly payments, lease regears that provide value to both parties deferred payments and where necessary rent holidays and waivers.

The potential uncertainty to revenue as a result of Covid-19 impact remains the highest risk to this income as businesses struggle to meaningfully plan for their operations, the risk of future business insolvencies and fundamental shift in various sectors, including office and retail.

4.12.8 Place and Economy

The Place and Economy outturn projection for Adur is on budget overall. The service has experienced a shortfall in the income received for outdoor markets, events and commercial advertising space in direct response to the coronavirus pandemic. However, these losses have been offset by expenditure underspends in the same subject areas.

In Worthing there is a shortfall in income associated with the Worthing Observation Wheel which is partly offset by additional concession income, filming income and expenditure savings. The savings are associated as a direct result of the national restrictions, including the loss of the majority of the events programme. The year end forecast is a net overspend of £15,000. Staff savings of £15,000 are captured within the vacancy provision monitoring.

4.12.9 External Borrowing Costs, Investments and Minimum Revenue Provision

The Minimum Revenue Provision (MRP) is a statutory charge to the revenue budget to provide for the repayment of debt. The calculation is based on the level of historic capital spend that has been financed from borrowing. Consequently, once the accounts have been closed and the calculation has been updated for the capital spend in 2019/20, there is certainty about the charge for the forthcoming year.

Worthing has an underspend on its MRP budget of £262,000 and Adur has an underspend of £135,000 due to the reprofiling to 2020/21 of a proportion of the 2019/20 Capital Programmes and the impact of changes to planned financing due to increased levels of capital receipts and capital grants, both of which offset the need to borrow.

Interest receivable from treasury investments will be below budget for both Councils due to the significantly lower than forecast interest rates available in the market. For Adur there is the additional loss due to the delayed capital receipt from the sale of the Civic Centre site in Shoreham. However the interest payable on borrowing will also be reduced, again due to the reprofiling of capital budgets and lower interest rates. Net underspends are forecast to be £16,500 in Adur and £270,500 in Worthing.

4.12.10 Revenues and Benefits

There has been a significant impact on court cost recovery income due to the Covid-19 pandemic with Courts still not operating during the third quarter and recovery action suspended by the Councils. The estimated income shortfalls for Adur and Worthing is £270,000 and £429,000 respectively. A proportion of this shortfall in court cost recovery will be compensated through the Sales, Fees and Charges Scheme.

Overpayment income is also below budget in both councils with projected year end positions currently £196,000 in Adur and £381,000 in Worthing. The assumptions are based on activity to date assuming no significant change in the final quarter of the year. This pressure will be 100 per cent borne by the council.

There were some additional system, staff and printing costs incurred to:

- Continue to administer the changes in business rates reliefs announced by the government in response to the pandemic
- Respond to an increase in the volume of claims for Council Tax Support
- Award up to £150 discretionary Council Tax Support to working-age customers
- Introduce a new scheme that, subject to certain qualifying criteria, provides £500 support payments to residents who are required to self isolate through the government Track and Trace system. The scheme runs until 31 March 2021 and seeks to encourage residents to adhere to self-isolation requirements

Covid-19 Emergency funding and new burdens funding has been provided to support these pressures, including additional staff, as referenced in section 4.4 of this report. The government will reimburse Councils for the cost of setting up the track and trace payment system. Additionally there are some expenditure budgets expected to be underspent in 2021/22 amounting to an estimated £29,000 in Adur and £46,000 in Worthing.

4.12.11 Hardship Funding and New Homes Bonus

The councils received Hardship Fund grant payments from the government in April 2020 to ensure that financially vulnerable residents were supported during these difficult times. This grant was to be used to fund additional Council Tax discounts of at least £150.00 per Council Tax Support Claimant. Any residual funds are to be used at the discretion of the Council

for measures to support vulnerable residents. Currently it is anticipated that that there will be unspent grant at the end of the financial year;

	Adur	Worthing
	£	£
Hardship Grant Received	453,179	709,577
Estimated allocation of funds	206,479	695,377
Forecast balance of funds	246,700	14,200

As at December, £160,600 had been spent in Adur and £624,790 in Worthing. Funds have also been committed to self isolation payments and additional resources to administer the processes.

No surplus grant funds were previously forecast as it was too early to know the position at quarter 2. There is a larger balance in Adur due to the level of support given to claimants through the existing local scheme which has meant that the £150.00 additional discounts have cost less.

It is expected that Worthing will have unallocated New Homes Bonus grant in 2020/21 of £252,460. The additional one-off 2020/21 allocation was set aside to support one-off projects within the budget and has largely been committed to sustainability projects during the year. Currently there is £252,460 remaining within Worthing whereas Adur has fully committed the 2020/21 allocation.

4.12.12 Leisure Provision

As reported in September the leisure provider for Adur, ACL declared insolvency in July 2020. Since that time the Council has been working hard to position itself able to award a shorter term service contract (5 years) to South Down Leisure Trust. An update report was taken to the Joint Strategic Committee on 3rd November which informed members that overall costs have been identified of £717,870 in 2020/21, which exceeds the original budget for leisure provision of £135,000. The Joint Strategic committee approved the release of additional budget to be funded from the emergency grant provided by the government.

In Worthing the Council is providing financial support to provider South Downs Leisure. The additional funding package amounts to £572,000 for the current year which includes additional support to enable the re-opening of the swimming pool. The key issue facing the Council is the unknown timeline for the current pandemic, the current lockdown period and the

probability of Social Distancing measures thereafter staying in place for the longer than expected may increase the level of subsidy required.

Adur and Worthing Council have submitted claims to the National Leisure Recovery Fund for allocations of £110,000 and £200,000 respectively. Notification of the success of the claims is due in February, currently this funding is not built into the forecast projection so would improve the outturn position if awarded.

4.12.13 Business Rates

Additional net income is anticipated in relation to Business Rates S31 grants by Adur £3.7m and Worthing £6.3m. The variance is due to the timing difference between when the budget was set and decisions made by Treasury in relation to reliefs where compensation is funded through section 31 funding. A significant number of additional reliefs have been awarded in 2020/21, the government implemented these changes to support businesses in a year where the Covid-19 emergency has impacted on their ability to trade normally.

Business Rate income is volatile and can be affected by many factors: government decisions, changing use of commercial properties, valuations, appeals. It will therefore be recommended to members that they agree to put any additional business rates income received in 2020/21 into the Business Rates Smoothing Reserves. The reserves can then be used, when required, to smooth the effect of the business rates volatility in future years.

4.12.14 Local Tax Income Guarantee

The government intends to compensate Councils for any in-year losses in either Council Tax or Business Rates in 2020-21.This scheme will run in parallel to the requirement for billing authorities to spread the in-year 2020-21 collection fund deficit over 3 years.

Given that these losses are being funded over a three year period by the precepting bodies, this grant will be used over the same period to ensure that these losses are offset in the year in which the Council will need to fund them. It will therefore be prudent for these funds to be moved to reserves at the end of 2020/21 to be drawn down over the 3 years.

It is estimated that the value of the grants that will be received in 2020/21 are:

	ADC	WBC
	£	£
Council Tax	188,125	166,159
Business Rates	293,790	753,600
	481,915	919,759

4.14 Budget variations greater than £20,000

The Councils individual Summary Projected Outturns are reported in Appendix 1a for Adur District Council and Appendix 2a for Worthing Borough Council.The variations greater than £20,000, for this report, are detailed in Appendix 4.

There are some expenditure items that are not identified until the year end that will impact on the final outturn. These items can have a positive or negative impact on the final position.

They include:-

- Movement in the estimate for doubtful debts,
- A review of any amounts needed to be set aside for liabilities that are likely to occur in the future
- Changes in allocations of staff time to outside the General Fund

4.15 Cross Cutting Budgets

The following categories of expenditure are analysed across various services. It is anticipated that this will be on target:

- Equipment, furniture and materials
- Postage
- Printing stationery and office supplies
- Consultancy costs
- Travel costs

Vacancy Provision

The budget includes a vacancy target of £758,530 and this is not being achieved. Despite recruitment being tightly controlled with director approval required for any new appointments, there are pressures resulting from both the pay award and Covid -19 resourcing requirements. During the

pandemic there has been the need for both extra agency staff and hours from employees to cover additional duties and to fill resource gaps created by the need for self isolation by some staff. Current indications are that the shortfall will be £679,000 which include the following;

- The pay award of 2.75% is an additional 0.75% above the increase built into the 2020/21 budget. This translates to an extra £198,000 cost pressure in the current year across the Councils.
- Overtime - additional resource required associated with Covid -19 £146,000 across all services. This reflects the costs that have been directly attributed to the Covid 19 code, however there will be other overtime costs associated with additional pressures associated with the pandemic that have not been separately identified as related.
- Agency costs within Environmental Services Waste and Cleansing to manage the resource staff shortages related to sickness and self isolation requirements £222,000.
- Compensation costs and exit payments £105,000.

The emergency covid funding will be used to fund some of these overspends where they relate to the pandemic pressures. As per section 4.12.3 it has been recognised that the current budget for agency costs in Waste and Cleansing is not sufficient, this has been addressed in the 2021/22 budget with an additional £150,000 allocated. Increased salary costs resulting from the 2020 award have been incorporated into the 2021/22 budget.

Utilities

Expenditure overall is currently forecast to be higher than budget. Water costs in Adur are expected to be £20,000 over budget and this is mainly in allotments, parks and public conveniences. Energy expenditure in Adur is projected to be marginally overspent, the main site being Commerce Way, with the overspend in Worthing estimated to be £11,000 over various sites including the Town Hall and Portland House.

These areas of expenditure will continue to be monitored and the impact of any new contracts reviewed.

Maintenance

Budgets are under pressure with an estimated overall overspend in both Adur and Worthing for 2020/21 of £66,000 and £71,000 respectively.

In Worthing there have been works required at the Splashpoint site which include replacement of 7 expensive glass panels due to vandalism at a cost of an estimated £36,000. In addition, work has been carried out on Parade

lighting with a number of replacements required as a result of issues identified during lighting checks. The additional cremations carried out in excess of the maintenance contract will increase the amount payable by an additional £25,000 in the year. The overspend projection for Worthing has reduced significantly from that reported at quarter 2 (£208,000) following a review of anticipated spend and the identification of expenditure to be charged to capital.

In Adur it is expected that the maintenance costs will exceed budgets for reactive expenditure on the Council sites including Commerce Way,, Ropetackle Centre and the Public Toilets.

Maintenance budgets have regularly been insufficient for the demand for required works. This is being addressed with an increase factored into the 2020/21 budget of £25,000 Adur and £50,000 Worthing and a further increase for the same added to the medium term financial plan for 2021/22.

4.16 Future Risks

Current forecast outturn positions include assumptions based on current information. These are reviewed and updated regularly but there is a risk, particularly during this volatile period both locally and nationally, that these assumptions are inaccurate. These are unprecedented times and it is difficult to anticipate trends in performance with any degree of certainty even this far into the financial year. There has been no firm information from the government on the timetable for easing current restrictions and it is therefore difficult to predict the economic course of recovery.

Worthing Theatre and Museum Trust have been very proactive during the pandemic, still providing a cultural offer where possible whilst adhering to the restrictions and social distancing guidelines. They have actively sought out opportunities to apply for external support funding and have been successful in their claim to the Art Recovery Fund with an allocated sum of £239,000. However, if the pandemic continues into the new year the Council may be required to consider the provision of additional support.

5. Housing Revenue Account

5.1 The Adur Housing Revenue Account is a ring fenced account. The HRA forecast is shown in Appendix 3.

5.2 The HRA is forecast to overspend against the budget for 2020/21 by £273,849.

There has been a shortfall in rental income for both dwellings and garages.

This is partly as a result of letting restrictions earlier in the year, in line with Covid-19 government guidelines and partly due to the decant of the Ashcroft block of flats to enable investigatory repair works.

Repair and maintenance budgets have continued to be under pressure in 2020/21, as in 2019/20. This is due to additional requirements around fire safety and other compliance regulations, as well as sustained demand on the reactive repairs budget. It is anticipated that the latter will be eased in future years by an increased capital investment programme.

The approved budget includes the use of HRA reserves of £526,500 which is required to meet the cost pressures from rent limitation and maintenance and repair work required to the housing stock resulting from the condition survey.

6. Engagement and Communication

6.1 The Corporate Leadership Team and budget managers have all collaborated in the content of this report providing explanation and narrative on the forecast variances.

7. Financial Implications

7.1 The significant impact the pandemic is having on the Council finances during this financial year is evident from the anticipated operational overspends. The economic situation is ever changing and difficult to predict or model with any certainty and the assumptions used to forecast full year performance will continue to be reviewed and adapted. Currently, operational overspends are anticipated in Adur District Council £1.157m, and Worthing Borough Council £3.914m, included within these projections is a forecast overspend within the Joint Committee of £626,000.

7.2 The Government has recognised the pressure on Councils and has committed funding through grants and support schemes to help support, additionally the Councils will benefit from the income guarantee compensation scheme. Nevertheless there is still a budget pressure that needs to be managed.

7.3 Overall the projected outturn positions net of funding and reserve transfers are underspends of £223,000 in Adur and £13,000 in Worthing.

9. Legal Implications

9.1 Section 151 of the Local Government Act, 1972 requires the Councils to make arrangements for the proper administration of their financial affairs. Further, Local authorities have a statutory duty under the Local Government Act 2003, to monitor their income and expenditure against their budget, and be ready to take action if overspends or shortfalls in income emerge.

Background Papers

Joint Overall Budget Estimates 2020/21
https://democracy.adur-worthing.gov.uk/documents/g226/Public%20reports%20pack%2011th-Feb-2020%2018.30%20Joint%20Strategic%20Committee.pdf?T=10

Adur District Council Budget Estimates 2020/21 and Setting of the 2020/21 Council Tax
https://democracy.adur-worthing.gov.uk/documents/b4175/2020.02.20%20-%20Adur%20Council%20-%20Revenue%20Budget%202020-21%20complete%2020th-Feb-2020%2019.00%20Adur%20Council.pdf?T=9

Worthing Overall Budget Estimates 2020/21 and Setting of 2020/21 Council Tax
https://democracy.adur-worthing.gov.uk/documents/b4180/Supplementary%20WBC%20Budget%20Pack%2018th-Feb-2020%2018.30%20Worthing%20Council.pdf?T=9
Financial Performance 2019/20 - Revenue Outturn
https://democracy.adur-worthing.gov.uk/documents/g1484/Public%20reports%20pack%2007th-Jul-2020%2018.30%20Joint%20Strategic%20Committee.pdf?T=10

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Sustainability & Risk Assessment

1. Economic
Matter considered and no issues identified

2. Social

2.1 Social Value
Matter considered and no issues identified

2.2 Equality Issues
Matter considered and no issues identified

2.3 Community Safety Issues (Section 17)
Matter considered and no issues identified

2.4 Human Rights Issues
Matter considered and no issues identified

3. Environmental
Matter considered and no issues identified

4. Governance
Matter considered and no issues identified

ADUR DISTRICT COUNCIL

SUMMARY - 3RD QUARTER PROJECTED OUTTURN 2020/21 **APPENDIX 1a**

Actual Previous year 2019/20	ADUR CABINET MEMBER PORTFOLIOS	Original Estimate 2020/21	Current Estimate 2020/21	Projected Outturn to 31st March 2021	Forecast Over/ (Under)
2,474,696	CM for Environment	2,555,220	2,555,220	3,462,020	906,800
1,218,545	CM for Health & Wellbeing	1,274,720	1,288,710	1,069,110	(219,600)
1,442,175	CM for Customer Services	1,443,050	1,443,050	1,684,850	241,800
677,922	Leader	638,050	638,050	592,050	(46,000)
1,803,786	CM for Regeneration	1,734,060	1,734,060	1,842,060	108,000
795,344	CM for Resources	(118,450)	(51,720)	(4,125,135)	(4,073,415)
0	Holding Accounts	55,670	55,670	55,670	0
8,412,468	**Total Cabinet Member**	7,582,320	7,663,040	4,580,625	(3,082,415)
(1,401,117)	Credit Back Depreciation	(1,326,600)	(1,326,600)	(1,326,600)	0
1,391,306	Minimum Revenue Provision	2,356,630	2,356,630	2,221,630	(135,000)
(525,336)	Non ring fenced grants	0	0	0	0
7,877,321		8,612,350	8,693,070	5,475,655	(3,217,415)
0	**Government Grant funding**	0	0	(1,500,671)	(1,500,671)
	Transfer to/from reserves				
0	Contribution to/(from reserves)	0	0	4,495,515	4,495,515
(477,561)	Transfer from reserves to fund specific expenditure (inc carry forwards)	0	(80,720)	(80,720)	-
1,078,490	General Fund Working balance	0	0	0	0
180,609	Net Underspend/(Overspend) Recommended For Transfer To/ (From) Reserves	0	0	222,571	222,571
8,658,859	**Total Budget requirement before External Support from Government**	**8,612,350**	**8,612,350**	**8,612,350**	**0**

ADUR DISTRICT COUNCIL **EARMARKED REVENUE RESERVE ACCOUNTS**	**Opening Balance 2020/21**	**Estimated Transfers Out 2020/21**	**Estimated Transfers In 2020/21**	**Projected Closing Balance 2020/21**
	£	**£**	**£**	**£**
Capacity Issues Reserve including approved Carry Forward budgets	337,445			
Friends of Shoreham Fort (JSC 6 May 2014)		(10,000)		
New Salts Farm Lancing (JSC/047/20-21 8 September 2020)		(40,000)		
Adur carry forwards from 2019/20 underspends, agreed Joint Strategic Committee 7th July, 2020		(80,700)		
Food Waste Collection Service - Purchase of vehicle and equipment (6th October 2020 JSC)		(25,500)		
Budgeted contribution (to)/from revenue			-	
Balance				181,245
Insurance Fund	153,344	(30,250)	30,700	153,794
Business Rates Smoothing Reserve	30,735		3,730,710	3,761,445
Local Tax Income Guarantee	-	-	481,915	481,915
Grants and Contributions held in Reserves	622,769			622,769
Election Reserve	7,880			7,880
Special and Other Emergency Reserve	60,254			60,254
Property Investment Risk Reserve	100,000			100,000
Projected Underspend/(Overspend) (Reserve to be identified at outturn)			223,000	223,000
General Fund Reserve	951,497	-	-	951,497
TOTALS	2,263,924	(186,450)	4,466,325	6,543,799

WORTHING BOROUGH COUNCIL

SUMMARY - 3RD QUARTER PROJECTED OUTTURN 2020/21 **APPENDIX 2a**

Actual Previous year 2019/20	WORTHING CABINET MEMBER PORTFOLIOS	Original Estimate 2020/21	Current Estimate 2020/21	Projected Outturn to 31st March 2021	Forecast Over/ (Under)
3,736,134	CM for Digital & Environment	3,020,850	3,020,850	4,000,250	979,400
1,739,403	CM for Health & Wellbeing	1,729,360	1,729,360	1,405,960	(323,400)
5,406,394	CM for Customer Services	5,266,890	5,266,890	5,849,090	582,200
770,406	Leader	810,290	810,290	769,290	(41,000)
2,885,345	CM for Regeneration	2,050,920	2,160,920	4,682,420	2,521,500
859,966	CM for Resources	727,290	774,790	(6,118,369)	(6,893,159)
-	Holding Accounts	389,570	389,570	389,570	0
15,397,648	**Total Cabinet Member**	13,995,170	14,152,670	10,978,211	(3,174,459)
(3,638,521)	Credit Back Depreciation	(3,195,320)	(3,195,320)	(3,195,320)	0
1,456,805	Minimum Revenue Provision	2,472,600	2,472,600	2,210,600	(262,000)
(395,355)	Non ring fenced grants	0	0	0	0
12,820,577		13,272,450	13,429,950	9,993,491	(3,436,459)
0	**Government Grant funding**	0	0	(4,106,484)	(4,106,484)
	Transfer to/from reserves				
0	Contribution to/(from reserves)	86,250	86,250	7,616,409	7,530,159
(260,900)	Transfer from reserves to fund specific expenditure (inc carry forwards)	0	(157,500)	(157,500)	0
836,843	General Fund Working balance	0	0	0	0
307,491	Net Underspend/(Overspend) Recommended For Transfer To/(From) Reserves	0	0	12,784	12,784
13,704,011	**Total Budget requirement before External Support from Government**	**13,358,700**	**13,358,700**	**13,358,700**	**-**

WORTHING BOROUGH COUNCIL

EARMARKED REVENUE RESERVE ACCOUNTS	Opening Balance 2020/21	Estimated Transfers Out 2020/21	Estimated Transfers In 2020/21	Projected Closing Balance 2020/21
	£	£	£	£
Capacity Issues Reserve including approved Carry Forward budgets	1,361,700			
Marketing/legal costs re disposal of High St & Civic Centre car park sites (28/02/12 JSC/094/11-12) up to £50k each		(40,560)		
Funding for Decoy Farm survey (22/7/14 JSC/031/14-15)		(108,404)		
Development of Natural Burial Area (5 March 2019 JSC/105/18-19)		(100,000)		
Food Waste Collection Service - Purchase of vehicle and equipment (6th October 2020 JSC)		(59,500)		
Teville Gate housing initial project costs (03/11/2020 JSC/71/20-21		(246,000)		
Worthing carry forwards from 2019/20 underspends, agreed Joint Strategic Committee 7th July, 2020		(157,500)		
Budgeted contribution (to)/from revenue			-	
Balance				649,736
Insurance Reserve	247,687	(30,250)	26,250	243,687
Joint Health Promotion Reserve	1,485			1,485
Leisure Lottery & Other Partnerships - 01/02/18 JSC/092/17-18 for Museum Costume Research Centre	27,766			27,766
Museum reserve	106,396			106,396
Theatres Capital Maintenance Reserve	108,733	TBC	TBC	108,733
Special and Other Emergency Reserve	3,053			3,053
Business Rates Smoothing Reserve	436,515		6,316,540	6,753,055
Local Tax Income Guarantee	0		919,759	919,759
Property Investment Risk Reserve	200,000			200,000
Grants & Contributions	805,648			805,648
Capital Expenditure Reserve	29,658	(29,658)		0
Projected Underspend/ (Overspend) (Reserve to be identified at outturn).			13,000	13,000
General Fund Working Balance	1,543,373			1,543,373
TOTAL	4,872,014	(771,872)	7,275,549	11,375,691

HOUSING REVENUE ACCOUNT SUMMARY **Appendix 3**

	ORIGINAL BUDGET	YTD ACTUALS	FORECAST ACTUALS	FORECAST VARIANCE
	£	£	£	£
EXPENDITURE				
General Management	4,285,500	1,375,527	4,236,045	(49,455)
Special Services	685,670	351,382	613,242	(72,428)
Rent, Rates, Taxes & Other Charges	32,320	57,567	73,499	41,179
Repairs & Maintenance	2,693,680	1,852,367	2,808,539	114,859
Bad/Doubtful Debt	50,000	-	100,000	50,000
Capital Financing Costs				
Depreciation and Revenue Contribution to Capital	4,102,190	-	4,102,190	0
Interest charges	2,228,460	887,940	2,200,255	(28,205)
TOTAL EXPENDITURE	**14,077,820**	**4,524,783**	**14,133,770**	**55,950**
INCOME				
Dwelling Rents	(12,163,820)	(8,536,107)	(12,008,228)	155,592
Non-Dwelling Rents	(591,380)	(413,640)	(553,204)	38,176
Heating and Other Service Charges	(512,710)	(380,680)	(534,776)	(22,066)
Leaseholder's Service Charges	(255,410)	(62,937)	(212,213)	43,197
Interest Received	(28,000)	-	(25,000)	3,000
TOTAL INCOME	**(13,551,320)**	**(9,393,364)**	**(13,333,421)**	**217,899**
NET (SURPLUS)/DEFICIT -TFR (TO)/FROM HRA GENERAL RESERVE	**526,500**	**(4,868,581)**	**800,349**	**273,849**

Service Area	Joint £000s (under)/ over spend	Adur £000s (under)/ over spend	Worthing £000s (under)/ over spend	Description of Significant Variations
Director of Communities				
Community Wellbeing	(449)	-	(28)	Projected surplus balance on revenue grants reclassified as without conditions. Includes prior year surplus previously brought forward on receipt in advance, estimates for transfer to balance sheet at year end
Licensing	-	-	20	Worthing: Shortfall in license income (Gambling, Alcohol & Entertaining, Street trade)
Public Health & Regulation	-	(118)	(46)	Adur: MHCLG EHO Covid-19 enforcement grant (£50k) + DEFRA Export Health Certificate grant (£75k) less £7k shortfall in customer receipts. Worthing: MHCLG EHO Covid-19 enforcement grant (£50k) less £4k shortfall in customer receipts
Head of Housing	(68)			Unused miscellaneous expenses budget
Env Health - Housing	-	-	(98)	Home Improvement Assistance fee income expected to exceed budget WBC (£76k), Civil penalty notices and HMO licences in excess of budget (£44k) offset by increased cost of Publih Health Funerals (22k)
Housing Needs	-	(93)	81	Adur: Homeless caseload previously stable for much of the year showed relatively rapid increase in Q3 (37 households at end Sept up to an average of 57 at the end Dec), reducing the underspend previously forecast. Worthing: Covid-19 has had large impact on Worthing caseload, however the increase anticipated due to winter pressures is less than previously forecast. Success in sourcing accommodation at a relatively affordable nightly rate has meant that much of the additional costs are almost covered by the rent charge.
Housing Needs Grant	-	(75)	(124)	MHCLG Homelessness Reduction Grant in respect of New Burdens associated with the Homelessness Reduction Act. Funding will be carried forward to 2021/22 if not spent in year (£75k Adur, £124k WBC).
Parks & Foreshore	-	29	39	Adur - includes income associated with landowners consent for laying electricity cables (£45k). There is additional income related from allotments and parks (£37k) which is partly offset by a loss of Outdoor sport and car boot income due to COVID 19 and overspend on repairs & maintenance and increased utilitiy costs. Worthing - Beach Hut income has been impacted in 20/21 by the Coronavirus pandemic where refunds have been issued for the period of lockdown during April and May and like Adur a loss of Outdoor sport and car boot income due to COVID 19.
Environmental Services (Waste)	96	(1)	14	Although vehicle repair costs contines to be monitored, the budget is currently not suficient with costs expected to rise due to their warranty ending. There has also been an increased pressure on the costs within the cleansing teams due to the increase numbers of visitors to the beach.
Commercial Waste	21	36	116	Disposal costs are underspending and Income costs are showing losses due to COVID19 and the associated fall in demand, this is due to a reduction in tonages collected as the pandemic continues to impact on the Commercial waste service. Adur Income losses 68k offset by reduced costs of £32k, Worthing lost income £194k offset by reduced costs £78k. Within the Joint service there is a projected overspend on vehicles and on other supplies & services £19.1k.
Bereavement Services (Cemeteries)	-	58	22	Adur - shortfall in income £40k plus some overspend in supplies and services expenditure. Worthing - Covid 19 Expenditure on equipment where there is no budget, including grave shoring, HAVS monitoring equipment and defibrillators. This is partly offset by income in excess of budget.
Bereavement Services (Crematorium)	-	-	157	Overspends in expenditure budgets of £78k include costs associated with security and the new media system. In addition there is an underachievement in Cremation income projected as there is a shift towards direct cremations as the pandemic continues, along with reduced memorial income as the Coronavirus Act limits work to funeral services only.
	(400)	**(164)**	**153**	
Director of Digital and Resources				
Elections	-	(46)	(41)	Elections were due to be held for both Adur & Worthing Councils on 7 May 2020. Due to the pandemic, all scheduled elections have been postponed until 6 May 2021.

Service Area	Joint £000s (under)/ over spend	Adur £000s (under)/ over spend	Worthing £000s (under)/ over spend	Description of Significant Variations
Parking Services	-	138	1,888	WORTHING - The maintenance for the parking ANPR equipment for the three MSCPs is overspending, the contract expires September 2021. There is low usage across the surface car parks and multi-storey car parks due to COVID. Companies have cancelled their season tickets which is impacting on the income. Teville Gate has very low usage, we hope this will improve once HMRC leases the site. Offset by a slight decrease in monthly costs from NSL. ADUR - Income has been impacted by the pandemic
Digital & ICT	(18)	-	-	Digital Services - Good progress on migration to cloud hosting in AWS has increased IaaS running costs but we are not yet able to decommission legacy infrastructure, meaning there were some dual running costs incurred.
Revenues	-	247	445	Due to the COVID-19 situation there is already an increase in Live CTS caseloads. Every time a CTS claim is adjusted a Council Tax adjustment notice is produced so it is highly likely that the print & postage budgets will be over-spent. Recovery action is currently suspended and therefore no Court costs are being raised; the Courts are also not currently operating. Court costs income for 2020/21 will not be met.
Benefits	-	190	319	Due to Covid-19 it is highly likely that the print & postage budgets will be overspent but offset by underspends in other areas. The estimate for Overpayments income has seen a downturn of £493k due to COVID19 as there is an increase in non recoverable write offs for Worthing. There is also a shortfall projected in Adur £150k.
Finance	61	(232)	(20)	Worthing: Various savings in Miscellaneous expenses to budget with a 50K insurance excess fee that is over budget. Large Adur underspend of 246K in the hardship fund accounts for most of the Adur difference. Various Joint overspends such as Costs to new Payroll system for around 12K and 50k Inflation cost in corp management
Local Tax Income guarantee schemes		(482)	(920)	Government grant for Local Tax income losses.
Business Rates - S31 Grant	-	(3,730)	(6,316)	Addditional grant compensation for additional bisiness rate reliefs.
Finance:Treasury I*nterest*		(17)	(271)	Adur is forecast to overspend - interest receivable is estimated to under achieve by £211k due to the reduction in interest rates and the delay to the capital receipt for the sale of the Civic Centre site. Worthing's interest receivable is forecast to be below budget by £60k due to the signifcant reduction in interest rates. Both income shortfalls are offset by a reduction is the estimated interest payable and other financing costs on borrowing due to the re-profiling of the capital program for both authorities (Adur £216k and Worthing £319k).
Finance:Treasury *MRP*	-	(135)	(262)	MRP: Adur £135k and Worthing £262k both forecast underspends due to changing profiles within the capital programme.
	43	**(4,067)**	**(5,178)**	
Director of the Economy				
Major Projects and Investment (Estates)	(40)	(10)	418	Impact of COVID 19 for Investment properties that have now become vacant, this includes Montague Street in Worthing and the Luton complex Uxbridge in Adur. To manage and offset the shortfall in income during the year the budgeted transfer to the void reserves in both ADC and WBC will not be possible. There are also associated costs for rates and refurbishment of these properties.
Place and Economy (Economic Development)	-	-	15	Loss of Bus Shelter advertising and market income (Adur). Loss of income from Observation Wheel (Worthing) partly offset (£10k) from increased income in concessions.
Planning and Development (Building Control)	-	73	76	Loss of income due to impact of Covid-19.
Planning and Development (Development Control)	-	30	10	Income for the first part of the year was better than expected. This underspend should be sustained as long as expected major developments materialise before the end of the financial year
Planning and Development (Land Charges)	-	31	22	Loss of income due to impact of Covid-19.

Service Area	Joint £000s (under)/ over spend	Adur £000s (under)/ over spend	Worthing £000s (under)/ over spend	Description of Significant Variations
Business & Facilties	13	-	-	Mainly due to an overspend on Pool Cars £14k, offset by a saving in central equipment spend £27k
Emergency Planning	195	-	-	COVID 19 related expenditure which will be funded from the government emergency funding.
Admin Buildings	32	-	-	Net overspend on rates and other non pay under and over spends. Shortfall in income from rental payments and staff car parking during to COVID19.
Leisure	-	600	572	ADC: ACL ceased operating in Adur due to COVID 19 and liquidators were called in. There has been progress on reopening with SDL as a provider, but this will require additional support from the Council. WBC: Impact of support package to SDL - income shortfall from non payment of service fee (2 years) and Grounds maintenance charges and £38k p/m support costs for the operating of the pool at Splashpointto end of March 2021.
	200	**724**	**1,113**	
Cross Cutting services				
Maintenance	-	66	71	Adur During quarter 3 many of our buildings and some of our contractors have closed due to Covid-19 Government restrictions. This has meant that some of the maintenance and servicing works that we would usually expect during the second half of quarter 3 have been delayed until quarter 4. Defects are likely to materialise when these reopen. During the interim handover period of the three leisure sites previously run by Adur Community Leisure around £75k of works have been instructed with some works still be finalised. Worthing As with Adur, many of the buildings (including those operated by Southdowns Leisure Trust and Theatres Trust) were closed part way through quarter 3. These closures have meant that some maintenance works may be delayed until quarter 4. As per recent years, we anticipate Public Toilets, The Crematorium, Southdowns Leisure Trust and Theatres Trust buildings to be overspent at the end of the financial year as the budgets are insufficient.
Vacancy Provision	509	(28)	-	Vacancy provision will not meet its target due to COVID 19 pressures which include staffing cover for self isolation in areas like Waste services and overtime in other services completing additional duties due to the pandemic.
Corporate Budgets	198	-	-	Cost impact of the agreed 2.75% pay award (0.75% above the budgeted pay inflation).
Water	4	17	23	Water costs are overspent in Adur and Joint (Public conveniences, allotments and in recreational grounds).
Energy Costs	(28)	3	(12)	Commerce way overspend on electricity by 6k but Town Hall and Portland house currently under by 13.6K and 8.2K respectively due to Covid reduced use. Various large variances in Worthing Electricity
Other	100	(18)	18	
	783	**39**	**100**	
Allocation of Joint Variance		250	376	Share of joint services allocated 40:60 to Councils
Total Variance	**626**	**(3,217)**	**(3,436)**	

Service Area	Joint £000s (under)/ over spend	Adur £000s (under)/ over spend	Worthing £000s (under)/ over spend	Description of Significant Variations
Director of Communities				
Community Wellbeing	(228)	-	(28)	Increase in projected surplus on Grants that will be moved to the Balance sheet at year end
Public Health & Regulation	-	(118)	(46)	MHCLG EHO Covid-19 enforcement grant & DEFRA Export Health Certificate grant received but will be carried forward to next year to offset future spend
Head of Housing	(68)	-	-	Miscelleaneous budget underspent
Housing Needs	-	125	(22)	The homelessness caseload has increased since quarter 2 due to further restrictions and lockdowns because of the pandemic
Parks & Foreshore	-	75	(17)	Adur: Loss of income from football and outdoor sports & car boot income due to COVID 19, plus an increase in unexpected equipment costs
Environmental Services (Waste)	65	39	25	This reflects a revised green waste projection now allowing for advanced income being carried into 21/22 for the new rolling contract
Bereavement Services (Crematorium)	-	-	134	Income is now showing a shortfall due to more direct cremations rather than full cremations in the chapel becasue of the pandemic. Along with additional investment in our Media system, hydrallic pump and defibrillators
Director of Digital and Resources				
Parking Services	-	(46)	(93)	Revised projections are more favourable than in quarter 2 re COVID19 income shortfall
Revenues	-	253	67	Due to the COVID-19 situation there is an increase in Live Council Tax Support caseloads and with no recovery action still this projection of income loss has increased
Benefits	-	46	(52)	Overpayments income has seen a downturn due to COVID19 and is continuing to do so along with decisions on writing off debt which is also impacting in the outturn projection.
Finance	20	(223)	(56)	Adur's improved projection relates to income for the Government Hardship grant. ADC already had a support scheme in place so hasn't needed to use this for it's Council Tax support.
Local Tax Income guarantee schemes		(482)	(920)	Government grant for Local Tax income losses received and will be transferred to the Balance Sheet at the end of the year to offset future cost pressures
Business Rates - S31 Grant	-	(3,230)	(5,616)	Addditional grant compensation for additional bisiness rate reliefs, which will be transferred the the Business Rate Smoothing fund to offset future cost pressures
Finance:Treasury I*nterest*	-	(56)	(44)	The continued decline in interested rates plus budgeted sales receipt costs now not expected have impacted on the swing in the forecast.

Quarter 2 to 3 Movements over £50,000 **Appendix 4b**

Service Area	Joint £000s (under)/ over spend	Adur £000s (under)/ over spend	Worthing £000s (under)/ over spend	Description of Significant Variations
Director of the Economy				
Major Projects and Investment (Estates)	(40)	(312)	201	Due to the ongoing pandemic, this has reduced the expected rental income along with increased costs of business rates for empty properties maninly in Worthing, Whilst, Adur is showing a favourable variance since last quarter as it has exceeded its budgeted income targets for investment income which is offsetting any losses made during the year.
Planning and Development (Development Control)	-	70	40	Income from major schemes are now expected to be delayed until after March 2021
Cross Cutting services				
Maintenance	-	(2)	(137)	In Worthing they has been a review of expected spend to the year end and due to the ongoing pandemic has reduced the previously reported cost pressures.
Vacancy Provision	237	-	-	Due to the ongoing pandemic, some front line services have required additional staff to keep their services running

ADUR & WORTHING
COUNCILS

Joint Strategic Committee
2 March 2021
Item 6

Key Decision : No

Ward(s) Affected: All

3rd Quarter Capital Investment Programme & Projects Monitoring 2020/21

Report by the Director for Digital, Sustainability and Resources

EXECUTIVE SUMMARY

1. PURPOSE

1.1 This report updates the Joint Strategic Committee on the progress made on the 2020/21 Capital Investment Programmes for Adur District Council, Worthing Borough Council. The programmes include schemes which support the delivery of services by the Joint Services Committee.

1.2 The following appendices have been attached to this report:

Appendix 1: Adur District Council Capital Monitoring Summary
Appendix 2: Worthing Borough Council Capital Monitoring Summary
Appendix 3: Adur District Council Reprofiled Budgets
Appendix 4: Worthing Borough Council Reprofiled Budgets

2. RECOMMENDATIONS

2.1 The Joint Strategic Committee is asked:

(a) **With respect to the Capital Investment Programme of Adur District Council.**

i) To note the reprofiling of the Adur District Council capital schemes as advised in paragraphs 7.1.1 and Appendix 3.

ii) To approve the increase in the Disabled Facilities Grants Budget funded from additional Communities and Local Government Better Care Fund in line with anticipated grant allocations in 2020/21 as detailed in paragraph 7.2.3.

iii) To approve the virement of £65,000 to fund the revised tender costs for the refurbishment of Fort Haven Public Conveniences as detailed in paragraph 7.2.4.

iv) To approve the addition of the decarbonisation project management budget funded by Public Sector Decarbonisation Grant to the 2021/22 Capital Investment Programme as detailed in paragraph 7.2.5.

b) **With respect to the Capital Investment Programme of Worthing Borough Council.**

i) To note the reprofiling of the Worthing Borough Council capital schemes as advised in paragraphs 7.2.1 and Appendix 4.

ii) To approve the increase in the Disabled Facilities Grants Budget funded from additional Communities and Local Government Better Care Fund in line with anticipated grant allocations in 2020/21 as detailed in paragraph 7.3.2.

iv) To approve the addition of the energy efficiency schemes funded by Public Sector Decarbonisation Grant to the 2021/22 Capital Investment Programme as detailed in paragraph 7.3.3.

3. CONTEXT

3.1 In accordance with the Councils' Capital Strategy, the Capital Working Group oversees the implementation and progress of both Councils' Capital Investment Programmes.

3.2 The Capital Working Group meets quarterly and monitors the programmes' progress and finance, seeking to address any problems at an early stage in order for schemes to be completed within budget and timescales. Where problems are highlighted the Group considers possible remedies including virements between schemes, reprofiling of budgets between years and the withdrawal of schemes from the programme when schemes are unable to proceed. This could be due to resourcing problems, time delays or other factors beyond the Councils' control.

3.3 Full summaries of the progress of all the schemes in the 2020/21 Capital Investment Programmes are prepared each quarter highlighting:

Schemes with significant challenges	**Red**
Schemes where progress is being closely monitored	**Amber**
Schemes progressing well	**Green**
Schemes where progress is beyond officers' control	◘
Schemes with financial issues	£
Schemes where progress has improved	⇧
Schemes where progress has deteriorated	⇩

3.4 The Capital Working Group also ensures that capital schemes are approved within financial regulations.

3.5 Financial Regulations require officers to report each project on completion.

4. SUCCESSES AND CHALLENGES IN THE 2020/21 CAPITAL INVESTMENT PROGRAMMES

4.1 The following schemes are progressing well:

4.1.1 Adur Homes Capital Investment Programme

The Adur Homes Capital Investment Programme for 2020/21 was approved by the Joint Strategic Committee 9th October 2018.

Delivery of the Capital Improvement Programme continues to be shaped by guidance issued to local authorities by the Regulator of Social Housing in the aftermath of the Grenfell fire and better knowledge of our stock.

The appointment of a Fire Safety Officer has allowed us to focus on fire safety remedial works. Several fire remedial work schemes are now being implemented across our stock. This includes the front entrance fire door replacement programme which has already seen the replacement of 181 'critical' doors in tenanted properties. Engagement with leaseholders to identify and support them to bring their doors into compliance with the current legislation, has also commenced.

The upgrade of the Community Alarm Systems in our sheltered housing schemes is now at the implementation stage.

4.1.2 Adur Homes External Works Programme

The external capital works programme is being revised in light of the need to re-profile fire safety works and also critical health and safety works. However

the following is underway:

- The project to undertake external works to Rocks Close and Locks Court was tendered but due to Covid 19 restrictions the contract was not awarded and the scheme is being reviewed prior to re-tender.
- The project to undertake external works to Beachcroft Place and Bushby Close was tendered but the contract award was delayed due to Covid 19 restrictions. The contract has now been awarded and construction works are on site. Bushby Court is anticipated to complete Spring 2021 and Beachcroft Court December 2021.
- A firm has been appointed to provide programme management support.

4.1.3 **Adur Homes Development and Acquisition Programme**

Covid-19 has had a significant impact on all of the housing development schemes. The nationwide lockdown, site shutdowns and subsequent updated guidance on site operation and safety in a post Covid environment has impacted on supply chains, deliveries and on-site productivity. In particular the social distancing measures have meant that on-site staffing levels (site staff and site subcontractors/labour) have, in many cases, needed to reduce to 50% of normal capacity.

Whilst the above will mean an inevitable impact on programme delivery, during the past 6 months the team have still overseen the completion of one site and signed contracts and made a start on 2 new sites (27 homes). A report identifying a further 9 pipeline sites was approved by Joint Strategic Committee in October 2020.

Albion Street Refurbishment of 2 semi-detached house
Condition surveys have been undertaken along with asbestos removal. The build contract tender was issued in early February 2021 to undertake the conversion of 2 houses into 6 flats for temporary accommodation. Completion is anticipated in 2021/22.

Cecil Norris Development
Work continues on site to deliver 15 flats following a short site shutdown due to Covid-19. The site shutdown plus reduced on site workforce has had a significant impact on the project completion date with current estimates being May 2021.

Albion Street
Covid-19 has had a significant impact on the timescales for the contract award. However, contracts have now been signed with start on site anticipated March 2021 and completion estimated September 2022.

Small Sites (Hidden Homes)
Following approval of the small sites programme to deliver 56 new homes, planning applications have been submitted for 2 of the sites, with further sites to follow in March 2021.

Downsview Pub Site

Nine flats were completed in April 2020 as part of phase 1. All of the flats are now occupied, providing temporary accommodation to families in need.

Building contracts for phase 2 of Downview have been signed with the contractor currently on site to develop a further 8 homes for temporary accommodation. Works are due to complete in May 2021 however, the impact of the current lockdown on the supply of labour and materials is still to be quantified.

Rowlands Road Site

Following planning permission a contractor has been selected and contracts signed. The contractor has made a start on site to deliver a further 19 homes for temporary accommodation. Works on site are progressing well, however some time and cost impact has been felt from the discovery of more asbestos than had been identified as part of the asbestos survey. Also additional works have been identified on the structure and drainage. Due to the expanded scope of works and the impact of Covid 19 restrictions the completion date is currently forecasted for late July 2021. Overall the scheme is now expected to cost more than the original forecast but it is anticipated that the additional spend can be accommodated within the overall programme budget.

4.1.4 **Highdown Gardens Infrastructure Improvements**

A partial handover of the capital building works completed in December 2020. All capital building works are complete apart from the final structural reinforcement of the wheelchair lift and tethering system being implemented in January 2021.

A task and Finish group is meeting weekly to plan for the re opening of the gardens. The group includes a range of A&W councils representatives from different departments including Parks, IT, Marketing, Economy and Health & Safety. Due to the current uncertainties and restrictions around Covid 19, it was decided that the official open day will be pushed to the first two weeks of August 2021 with a series of invitations to guided tours leading to it. This will qualify as the soft launch which should be starting in April or May 2021.

The capital building works estimation remains as of 25/01/21 an overspend of £28,000. It is still well within the 10% contingency sum included in the overall budget. Final accounts will be submitted at the next quarter.

4.2 The following schemes are providing challenges and have been identified as having financial issues:

4.2.1 **Worthing Borough Council - Fire prevention works to pier, southern pavilion and amusements.**

The installation of the fire main to the whole length of the Pier and the sewerage pipe was completed in 2019/20.

However, the installation of a new sprinkler system to the buildings including the Southern Pavilion, Amusements and Pavilion Theatre are technically complex and will require a new dedicated water supply and associated pipework. The current budget is insufficient as the total cost of these works is estimated at £810,000. The possible budget pressure has previously been reported:

Current budget:	£503,040
Estimated Costs:	£810,000
Current estimated shortfall:	£306,960

Works to the Southern Pavilion are under discussion with the new tenant who is carrying out renovations and a sprinkler system for this building is being considered alongside the renovation works.

Costs for other works are being compiled and when estimates are received additional resources will be sought.

4.2.2 **Worthing Borough Council - Brooklands Redevelopment**

A new project manager has been appointed to the project. Progress continues looking at the design packages, contamination and procurement. The project will now be procured as a single unit rather than being divided into separate lots so that holistic decisions can be taken to keep the project moving forward and within budget.

The design team and independent Quantity Surveyors are working on a revised cost plan with the intention of preparing the tender package to go to the market in May 2021.

5. PROGRESS OF THE ADUR DISTRICT COUNCIL 2020/21 CAPITAL INVESTMENT PROGRAMME – FEBRUARY 2021

5.1 There are 63 schemes in the 2020/21 current capital investment programme which are progressing as follows:

	Number of schemes	Percentage %
Schemes which are progressing satisfactorily or have completed	46	73.1
Schemes where progress is being closely monitored	17	26.9
Schemes with significant challenges	0	0

5.2 A summary of the financial movements of the 2020/21 Capital Investment Programme is attached as Appendix 1 to this report. A summary of the progress of all the schemes in the 2020/21 Capital Investment Programme is available from the Councils' Joint Intranet.

6. PROGRESS OF THE WORTHING BOROUGH COUNCIL 2020/21 CAPITAL INVESTMENT PROGRAMME – FEBRUARY 2021

6.1 There are 95 schemes in the 2020/21 current capital investment programme which are progressing as follows:

	Number of schemes	Percentage %
Schemes which are progressing satisfactorily or have completed	71	74.7
Schemes where progress is being closely monitored	24	25.3
Schemes with significant challenges	0	0

6.2 A summary of the financial movements of the 2020/21 Capital Investment Programme is attached as Appendix 2 to this report. A summary of the progress of all the schemes in the 2020/21 Capital Investment Programme is available from the Councils' Joint Intranet.

7. ISSUES FOR CONSIDERATION

7.1 Adur and Worthing Joint Service Schemes

7.1.1 The following Adur District Council and Worthing Borough Council Joint Services 2020/21 scheme has financial issues:

7.1.2 Following the approval by the Joint Strategic Committee November 2018 to change to alternate weekly collections of refuse and recycling, the increase in demand for larger refuse and recycling bins created a joint Adur District and Worthing Borough Council overspend in both 2018/19 and 2019/20.

The increased demand for larger bins has continued in 2020/21. The Adur District and Worthing Borough Councils' Original 2020/21 Capital Investment Programmes included a joint budget of £50,000 for the purchase of new wheeled bins and this was increased to £74,858 in September 2020.

It has been necessary to place further orders to meet the demand for bins and additional funding of £37,000 is now required. It is proposed to fund the Adur District Council's share of the overspend of £13,470 from the contingency budget and the Worthing Borough Council's share of the overspend of £23,530 from the underspend on the Crematorium replacement signage scheme where the works have completed and there is an underspend of £25,000.

7.2 <u>Adur District Council</u>

7.2.1 Budgets totalling £60,883,950 have been reprofiled to 2021/22 and future years, where the original project plan has changed and the schemes are not

expected to complete in 2020/21. A list of schemes reprofiled is attached as Appendix 3 to this report.

7.2.2 The following amendments to the Adur District Council 2020/21 Capital Investment Programme are recommended:

7.2.3 **Increase in Disabled Facilities Grants Budget**

The 2021/22 Adur District Council Capital Investment Programme includes a budget provision of £350,000 for the provision of Disabled Facilities Grants. The scheme is 100% funded from the Communities and Local Government Better Care Fund. The spend to date is £441,041 and the forecast spend for 2020/21 is £540,000.

In previous years the Council has received more grant funding than grants allocated and has been able to carry forward this grant for use in future years.

It is recommended that the 2020/21 budget is increased by £99,000 to £540,000, funded from grant funding received in previous years.

7.2.4 **Public Conveniences - Fort Haven Site Refurbishment**

As part of the public conveniences rolling programme of upgrades and improvements the Fort Haven site was surveyed and identified as a site for refurbishment and an original provision of £25,000 was included in the Capital Investment Programme for these works. The refurbishment works were found to be more extensive than first envisaged and a further £45,000 was added to the budget giving a revised budget of £70,000.

However, tenders have now been received and the total cost is now estimated at £135,000 as a result of alterations to the scope of the project to include CCTV and renewal of the electrical distribution system. In addition increased demand within the construction industry is resulting in higher costs.

It is proposed to vire £50,000 from the unallocated Public Conveniences rolling improvement programme budget and £15,000 from the 2020/21 the contingency budget and underspends in the 2020/21 Capital Investment Programme to fund the estimated shortfall in the current budget.

7.2.5 **Public Sector Decarbonisation Scheme Grant Funding**

Adur District Council have been successful in an additional bid to the Public Sector Decarbonisation Scheme and have been awarded a grant of £151,410 to appoint external project managers to oversee the procurement, design & build of the 3 large heat pump projects for Adur District Council. (2 for Adur Homes and 1 at the Shoreham Centre).

This is in addition to the earlier successful bid for £2,163,150 reported to the Joint Strategic Committee on 9th February 2021 (£466,000 for Adur General Fund and £1,697,150 for Adur Homes).

7.3 Worthing Borough Council

7.3.1 Budgets totalling £59,713,970 have been reprofiled to 2021/22 and future years where the original project plan has changed and the schemes are unable to complete in 2020/21. A list of schemes reprofiled is attached as Appendix 4 to this report.

7.3.2 **Increase in Disabled Facilities Grants Budget**

The 2021/22 Worthing Borough Council Capital Investment Programme includes a budget provision of £750,000 for the provision of Disabled Facilities Grants. The scheme is 100% funded from the Communities and Local Government Better Care Fund. The spend to date is £929,577 and the forecast spend for 2020/21 is £1.2m.

In previous years the Council has received more grant funding than grants allocated and has been able to carry forward this grant for use in future years.

It is recommended that the 2020/21 budget is increased by £450,000 to £1.2m, funded from grant funding received in previous years.

7.3.3 **Public Sector Decarbonisation Scheme Grant Funding**

Worthing Borough Council have been successful in an additional bid to the Public Sector Decarbonisation Scheme and have been awarded a grant of £485,000. This is in addition to the earlier successful bid for £103,850 reported to the Joint Strategic Committee on 9th February 2021.

The grant funding will be used for the installation of various energy efficiency technologies as follows:

Portland House Triple Glazing:	£287,000
Worthing Town Hall / Portland House LED Lighting:	£62,000
Heating, Fabric Efficiency Improvements and Heat Metering at Worthing Town Hall, Assembly Hall and Portland House:	£136,000
Total:	**£485,000**

The works are due to start in summer 2021 and the LED lighting and heating schemes are anticipated to complete in the Autumn. However the Portland House glazing scheme is a significant project and will require liaison with the new Tenant and therefore timescales are unknown at this time.

Approval is requested to add the grant funding and the new projects to the 2021/22 Capital Investment Programme.

8. ENGAGEMENT AND COMMUNICATION

8.1 The purpose of this report is to communicate with stakeholders on the progress of the Adur District Council and Worthing Borough Council 2020/21 Capital Investment Programmes. Officers of the Council have been consulted with on the progress of the schemes which they are responsible for delivering.

8.2 Specific schemes are subject to public consultation (e.g new playgrounds) to ensure that they meet community needs.

9. FINANCIAL IMPLICATIONS

9.1 There are no unbudgeted financial implications arising from this report as the Adur District Council and Worthing Borough Council original 2020/21 Capital Investment Programmes were approved by the Councils in December 2019. Subsequent changes have been reported to and approved by the Joint Strategic Committee. The issues considered in this report can be funded from within existing resources or through external funding.

10. LEGAL IMPLICATIONS

10.1 Section 28 Local Government Act 2003, as amended by the Localism Act 2011, provides that where in relation to a financial year, a Local Authority has made the calculations required by section 43 Local Government Finance Act 1992, it must review them from time to time during the year. If it appears that there has been a deterioration in its financial position it must take such action, if any, as it considers is necessary to deal with the situation.

10.2 Section 151 of the Local Government Act 1972 requires the Councils to make arrangements for the proper administration of their financial affairs.

Background Papers

- Capital Investment Programme 2019/20 – 2021/22 Adur District Council, Worthing Borough Council and Joint Committee
- Capital Strategy 2019/22.
- Enabling the Digital Future for Adur & Worthing: Extending Ultrafast - Report to the Joint Strategic Committee dated 2nd April 2019.

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SUSTAINABILITY AND RISK ASSESSMENT

1. ECONOMIC

- The capital programme prioritisation model awards points for capital project proposals that impact positively on the economic development of our places or the economic participation of our communities.

2. SOCIAL

2.1 Social Value

- The capital programme prioritisation model awards points for capital project proposals that impact positively on our communities.

2.2 Equality Issues

- The capital programme prioritisation model awards points for capital project proposals that address DDA requirements and reduce inequalities.

3. ENVIRONMENTAL

- The management, custodianship and protection of our natural resources are considered when capital schemes are assessed for inclusion in the Councils' Capital Investment Programme.

4. GOVERNANCE

- The Councils' priorities, specific action plans, strategies or policies are considered when capital schemes are assessed for inclusion in the Councils' Capital Investment Programmes.

- The Councils' reputation or relationship with our partners or community is taken into account when capital schemes are assessed for inclusion in the Councils' Capital Investment Programmes.

- Resourcing, risk management (including health and safety) and the governance of the either Council are fully considered during the preparation of the Councils' Capital Investment Programmes.

ADUR DISTRICT COUNCIL

APPENDIX 1

CAPITAL MONITORING SUMMARY 2020/21 — 3rd Quarter

Executive Portfolios	(1) Total ADC Scheme Budgets £	(2) Previous Years' Spend £	(3) 2020/21 Original Budget £	(4) Net budget b/f from 2019/20 £	(5) Approved Changes to Original Budget £	(6) 2020/21 Budget Reprofiles to and from 2021/22 £	(7) 2020/21 Current Budget £	(8) 2020/21 Spend to Date £	(9) Spend % of Current Budget
Customer Services	77,242,490	2,464,180	10,331,900	2,950,680	20,252,570	(13,899,790)	19,635,360	10,840,199	55.21%
Environment	6,386,560	1,081,990	621,650	419,990	841,390	(717,100)	1,165,930	935,641	80.25%
Health and Wellbeing	641,260	25,050	33,600	30,360	334,250	(341,050)	57,160	30,693	53.70%
Regeneration	6,549,250	3,588,190	134,630	768,680	1,825,350	(1,619,000)	1,109,660	128,212	11.55%
Resources	87,637,330	38,270,960	50,308,670	6,578,720	(11,310,820)	(44,307,010)	1,269,560	317,257	24.99%
TOTALS	**178,456,890**	**45,430,370**	**61,430,450**	**10,748,430**	**11,942,740**	**(60,883,950)**	**23,237,670**	**12,252,002**	**52.72%**

Financing of 2020/21 Programme:

Adur Homes Capital Programme:	**£'000**
Capital Receipts:	1,242
Major Repairs Reserve:	3,900
Homes England:	
S106 Receipts:	
New Development Reserve:	1,640
Prudential Borrowing:	2,694
	9,476

General Fund Capital Programme:	**£'000**
Prudential Borrowing:	3,491
Capital Receipts:	6
Government Grants:	9,963
Revenue Reserves and Contributions	93
S106 Receipts	109
Other Contributions	100
	13,762

Summary of Progress:

Schemes with significant challenges:	0
Schemes where progress is being closely monitored:	17
Schemes progressing well or completed:	46
Total Schemes:	**63**

(1) SCHEME (Responsible Officer)	(2) Total ADC Scheme Budget £	(3) Previous Years' Spend £	(4) 2020/21 Original Budget £	(5) Budget Reprofiles to and from 2021/22 and Future Years £	(6) 2020/21 Current Budget £	(7) 2020/21 Spend to Date £	(8) Anticipated Completion Date (C) / Approval Report(D)/ P.I.D.(P)	(9) 2020/21 Anticipated (Underspend) /Overspend (Council Resources) £	(10) COMMENTS AND PROGRESS ● Progress Beyond Council's Control £ Schemes with financial issues ▲ Scheme Progress Improved ▼ Scheme Progress Deteriorated	(11) Status
Refuse and Recycling Service										
1 Provision of wheeled bins (Partnership Scheme with Worthing Borough Council. Total Budget £74,860) (TP)	27,250	-	18,200	-	27,250	32,778	Mar-21 02/01/20 (P)	13,408	The current demand has remained high. The current joint overspend was originally estimated at £24,858 and additional funding was allocated. A further joint overspend of £37,000 is anticipated. It is proposed to fund Adur District Council's share from the 2020/21 Capital Investment Programme contingency.	£
Public Conveniences										
2 Fort Haven Site Refurbishment (KS)	70,000	-	-	60,000	10,000	5,422	PID Submitted	65,000	The refurbishment works were found to be more extensive than first envisaged and a further £45,000 was added to the budget. However, tenders have now been received and the total cost is estimated at £135,000. It is proposed to vire £50,000 from the 2020/21 Public Conveniences rolling improvement programme budget and £15,000 from 2020/21 contingency and underspends in the 2020/21 Capital Investment Programme to fund the estimated shortfall in the current budget.	£

ADUR DISTRICT COUNCIL - 3RD QUARTER CAPITAL MONITORING SUMMARY

APPENDIX 1

(1) SCHEME (Responsible Officer)	(2) Total ADC Scheme Budget £	(3) Previous Years' Spend £	(4) 2020/21 Original Budget £	(5) Budget Reprofiles to and from 2021/22 and Future Years £	(6) 2020/21 Current Budget £	(7) 2020/21 Spend to Date £	(8) Anticipated Completion Date (C) / Approval Report(D)/ P.I.D.(P)	(9) 2020/21 Anticipated (Underspend) /Overspend (Council Resources) £	(10) COMMENTS AND PROGRESS	(11) Status
									◙ Progress Beyond Council's Control £ Schemes with financial issues ▲ Scheme Progress Improved ▼ Scheme Progress Deteriorated	
TOTAL:	**97,250**	**-**	**18,200**	**60,000**	**37,250**	**38,200.33**		**78,410**		

RESPONSIBLE OFFICERS: Tony Patching — Head of Waste Management and Cleansing
Kevin Smith — Principal Building Surveyor

WORTHING BOROUGH COUNCIL

APPENDIX 2

CAPITAL MONITORING SUMMARY 2020/21 — 3rd Quarter

Executive Portfolios	(1) Total WBC Scheme Budgets £	(2) Previous Years' Spend £	(3) 2020/21 Original Budget £	(4) Net Budget b/f from 2019/20 £	(5) Approved Changes to Original Budget £	(6) 2020/21 Budget Reprofiled to and (from) 2021/22 £	(7) 2020/21 Current Budget £	(8) 2020/21 Spend to Date £	(9) Spend % of Current Budget
Customer Services	20,331,720	4,733,630	4,178,600	764,230	1,917,390	(4,227,370)	2,632,850	2,215,506	84.15%
Digital and Environment Services	12,748,380	697,530	1,325,950	1,034,600	5,552,040	(3,364,040)	4,548,550	1,701,683	37.41%
Health and Wellbeing	786,830	5,080	50,400	69,350	60,000	(90,000)	89,750	56,633	63.10%
Regeneration	22,629,570	2,649,510	3,935,900	145,350	6,811,700	(3,274,350)	7,618,600	2,169,477	28.48%
Resources	50,752,010	81,910	50,576,130	(409,200)	(507,290)	(48,758,210)	901,430	4,781,292	530.41%
TOTALS	**107,248,510**	**8,167,660**	**60,066,980**	**1,604,330**	**13,833,840**	**(59,713,970)**	**15,791,180**	**10,924,591**	**69.18%**

Financing of 2020/21 Programme:

	£'000
Borrowing:	6019
Capital Receipts:	1730
Revenue Contributions and Reserves:	457
Government Grants:	6052
S106 Receipts	284
Other Contributions:	1,249
	15,791

Capital Monitoring - Summary of Progress:

Schemes with significant challenges:	-
Schemes where progress is being closely monitored:	24
Schemes which are progressing satisfactorily or have completed:	71
Total Schemes:	**95**

WORTHING BOROUGH COUNCIL - 3RD QUARTER CAPITAL MONITORING SUMMA

APPENDIX 2

(1) SCHEME (Responsible Officer)	(2) Total WBC Scheme Budget £	(3) Previous Years' Spend £	(4) 2020/21 Original Budget £	(5) Budget Reprofiles to and from 2021/22 and Future Years £	(6) 2020/21 Current Budget £	(7) 2020/21 Spend to Date £	(8) Anticipated Completion Date (C) / Approval Report(D)/ P.I.D.(P)	(9) 2020/21 Anticipated (Underspend) /Overspend (Council Resources) £	(10) COMMENTS AND PROGRESS ● Progress Beyond Council's Control £ Schemes with financial issues ▲ Scheme Progress Improved ▼ Scheme Progress Deteriorated	(11) Status
Refuse and Recycling Service										
1 Provision of wheeled bins (Partnership Scheme with Adur District Council. Total Budget £74,860) (TP)	47,610	-	31,800	-	47,610	57,272	Mar-21 02/01/20 (P)	23,430	The current demand has remained high. The current joint overspend was originally estimated at £24,858 and additional funding was allocated. A further joint overspend of £37,000 is anticipated. It is proposed to fund Worthing Borough Council's share from the 2020/21 Capital Investment Programme contingency.	£
TOTAL:	**47,610**	**-**	**31,800**	**0**	**47,610**	**57,272.01**		**23,430**		

RESPONSIBLE OFFICERS: Tony Patching Head of Waste Management and Cleansing

ADUR DISTRICT COUNCIL

Appendix 3

ADUR DISTRICT COUNCIL - CAPITAL BUDGETS REPROFILED TO FUTURE YEARS

Scheme	Reprofiled Budgets	Reason
Admin Buildings - Contribution to refurbishment of admin buildings for new ways of working	347,140	Scheme approved by the Joint Strategic Committee 1st December 2020 and profiled in line with anticipated expenditure.
Adur Homes Capital Investment Programme		***External Works Programme:***
	1,955,000	i) External works to Rocks Close and Locks Court. The works have been tendered but due to Covid 19 restrictions the contract was not awarded and will need to be retendered. Start on site now anticipated Spring 2021 with completion Summer 2021.
	800,000	ii) Bushby and Beachcroft Court replacement doors, porches and screens. Works have been delayed by Covid 19 but have started on site and are Bushby Court works are now anticipated to complete Spring 2021. The works at Beachcroft are estimated to complete December 2021.
	1,878,050	***Fire Safety Works*** : Contract work has been delayed by Covid 19 restrictions and budgets have been reprofiled to 2020/21 in line with anticipated expenditure.
	4,000,000	***HRA Development Programme*** Covid-19 has had a significant impact on the housing development programme and expenditure has been reprofiled in line with anticipated scheme profiles.
Affordable Housing Programme 2020/21 - Unallocated budget	2,069,800	One grant for £720,000 has been approved to the Hyde Group for the provision of 14 rented units. Remaining budget reprofiled to 2021/22 due to likely lead in times for any further grants identified.
Allotment Improvements	16,800	Transfer of budget to bowling greens watering systems to be considered in 2021/22.
Asbestos Surveys and Remediation Works	20,000	Programme of asbestos surveys is continuing and the budget has been profiled in line with anticipated expenditure.

ADUR DISTRICT COUNCIL

Appendix 3

ADUR DISTRICT COUNCIL - CAPITAL BUDGETS REPROFILED TO FUTURE YEARS

Scheme	Reprofiled Budgets	Reason
Buckingham Park - Contribution to a replacement pavilion	172,000	The Joint Strategic Committee has agreed in principle £150,000 S106 receipts and £38,800 capital resources to be used as match funding to help secure funding towards replacement of the pavilion at Buckingham Park. The Rugby Club have revised the designs for the new pavilion but external funding is still required and being sought. Significant repairs have now been identified from a recent condition survey and the management of all the buildings in the Park are now being considered.
Coast Protection Works - Shoreham Western Harbour Arm	1,500,000	The pandemic has impacted on the development of the scheme. Sussex Yacht Club had originally scheduled to move into their new yacht club in May 2020. They are now scheduled to decant into their new premises in March 2021. Following this the Council will be in a position to demolish the redundant yacht club and commence the construction of a new flood defence wall and cycle path.
Corporate Buildings - Condition Surveys	26,100	Discussions in progress with Brighton and Hove Council regarding future surveys. Budget reprofiled whilst works agreed.
Office Equipment - Replacement of Council Chamber Microphone System	14,100	The Digital Team are considering alternative technologies and solutions. Replacement anticipated in 2021/22.
Eastbrook Community Centre - Provision of Multi Use Games Area and building fabric repairs	321,050	Awaiting agreement of lease with the new tenants and their use of the building and external areas. The proposed tenant has changed from when the original PID was submitted. The original PID included the provision of a new Multi Games Area and improvements to the fabric of the building, but before the works can proceed Officers need to understand how the new tenant intends to use the space and whether they are able to bid for external funding.
Foreshore Management - Kingston Beach Area Improvements	20,000	Environmental improvements in the Kingston Beach Area are to be undertaken following the completion of coast protection works in the area. Budget profiled in 2021/22.

ADUR DISTRICT COUNCIL

Appendix 3

ADUR DISTRICT COUNCIL - CAPITAL BUDGETS REPROFILED TO FUTURE YEARS

Scheme	Reprofiled Budgets	Reason
Adur Town Centre Public Space Improvements	34,000	i) £24,000 reprofiled for public space improvements at Southwick Square. Some of the electrical works to enable lighting at public events has been completed. Consultants are assisting officers with the re-design for the central public area, and it is now a much larger project than first envisaged. ii) £10,000 reprofiled for Sompting and Lancing Dog Agility Park. The works have been delayed by Covid 19 restrictions and will be undertaken in 2021/22.
Fishersgate Recreation Ground - Resurfacing of car park	140,000	Scheme under consideration and my be undertaken alongside the Community Centre MUGA / paving scheme. The scheme is awaiting confirmation of the programme delivery for the Community Centre MUGA in order not to run for heavy construction plant on newly completed car park works.
Housing Renewal Assistance - Discretionary Grants	15,000	This scheme is demand led: grant approvals are for 3 - 12 months and can be taken up at any time in this period. Budget of £15,000 has been reprofiled to fund predicted outstanding commitments.
Housing - Empty property grants and loans to bring properties back into use.	42,000	A list of all the empty properties in Adur and Worthing has been compiled which advises if any properties require grants or loans. No properties have been identified to date.
Housing Development (General Fund) - Acquisition and development of emergency and temporary accommodation for the homeless	2,239,940	The Council is actively reviewing options to acquire land with Adur for the development of temporary and emergency accommodation and the budget has been reprofiled due to likely timescales.
Housing Development (General Fund) - Refurbishment of 2 properties in Albion Street to provide 6 flats for temporary accommodation for the homeless	900,000	The scheme has been delayed by Covid 19 restrictions. However, condition surveys have been undertaken along with asbestos removal. The build contract tender is due to be issued in early February to undertake the conversion of the two homes in 2021/22.

ADUR DISTRICT COUNCIL

Appendix 3

ADUR DISTRICT COUNCIL - CAPITAL BUDGETS REPROFILED TO FUTURE YEARS

Scheme	Reprofiled Budgets	Reason
Information and Technology - Digital Strategy (Partnership Scheme with Worthing Borough Council)	133,950	i) Approval received for the funding of the revenues and benefits licence and set up costs to be funded from the Digital Strategy Budget. £133,950 has been reprofiled in 2021/22 in line with anticipated spend.
	47,300	ii) Approval received for the funding of the licence for a low code digital platform, £59,870 profiled in 2020/21 and £47,300 funded in 2021/22.
Information and Technology - Extending Ultrafast Fibre Network	250,000	The scheme is progressing well. The budget has been profiled in line with anticipated expenditure profiles.
Lancing Leisure Centre - External cladding replacement	50,000	Budget reprofiled in line with anticipated expenditure.
Parks - Replacement signage	20,000	Scheme delayed by Covid 19 delivery problems, installation anticipated in 2021/22.
Parks and Open Spaces - Replacement of trees affected by Ash Dieback	-40,000	Budget b/f from 2021/22 to fund anticipated expenditure in 2020/21.
Shoreham Harbour Projects (Externally funded by the Central Government Growth Point Programme)	85,000	The Shoreham Harbour Project Board have approved the following contributions: i) £70,000 towards green infrastructure projects in the Shoreham Harbour area. Spend anticipated in 2021/22.
Play Area Improvements	100,000	The replacement equipment at Adur Recreation Ground and Lancing Manor Recreation Ground has now completed. The underspend is recommended to be carried forward for further improvements at other play area sites.
Play Area Improvements - Sompting Recreation Ground	95,800	Designs are in progress for installation in 2021/22.
Public Conveniences - Refurbishments	110,000	Fort Haven Public Convenience refurbishment anticipated to complete early in 2021/22. Further priorities to be agreed with Executive Member.

ADUR DISTRICT COUNCIL

ADUR DISTRICT COUNCIL - CAPITAL BUDGETS REPROFILED TO FUTURE YEARS

Scheme	Reprofiled Budgets	Reason
Southwick Recreation Ground - Resurfacing of hard surfaces	32,500	Scheme on hold awaiting a strategic review of the property. As the timescales for the works are uncertain the budget has been reprofiled to 2021/22.
Strategic Property Investments - Investments in commercial property to generate income	43,488,420	Officers are actively looking for properties to purchase but there are few suitable properties available at the current time.
Total Reprofiled Budgets:	**60,883,950**	

WORTHING BOROUGH COUNCIL

WORTHING BOROUGH COUNCIL - CAPITAL BUDGETS REPROFILED TO FUTURE YEARS

Scheme	Reprofiled Budgets	Reason
Admin Buildings - Improvement works	1,190,860	Improvements to admin buildings to facilitate new ways of working profiled in line with anticipated expenditure. i) Portland House - Asbestos removal and fire safety works. ii) Portland House - Replacement of boiler and heating upgrade. iii) Portland House - Replacement of building management system. iv) Town Hall - Refurbishment for new ways of working.
Affordable Housing (Partnership Schemes with Registered Social Landlords) Unallocated Budget	1,831,900	The Council has not received any requests from Registered Social Landlords for grants to date. Budget reprofiled to 2021/22 due to likely timescales for any grants requested.
Acquisition and development of emergency, interim or temporary accommodation for the homeless (Invest to Save Scheme)	1,000,000 1,000,000	Downsview Site: Phase 2 works are on site. The timber frame is now installed with roof and window installations due to commence. The site is due to complete May 2021. Rowlands Road Site: The refurbishment of the building has encountered some difficulties in terms of extra works required. Specifically additional expense from asbestos removal, additional structural/bracing amendments and drainage requirements. Due to the expanded scope of works and impact of Covid 19 restrictions the handover date is currently forecast for July 2021.
Asbestos Management and Removal from Corporate Buildings	60,000	Asbestos surveys are in progress and are being reviewed for any remediation works. Additional funding may be required for Worthing Town Hall in 2021/22.
Boundary Signs - Replacement of existing boundary signs on main entry routes into Worthing and additional signs on the A27	22,000	Replacement of boundary signs on hold. Officers are currently considering transferring remaining budget to other schemes.

WORTHING BOROUGH COUNCIL

WORTHING BOROUGH COUNCIL - CAPITAL BUDGETS REPROFILED TO FUTURE YEARS

Scheme	Reprofiled Budgets	Reason
Brooklands Park Redevelopment	1,300,000	A new project manager has been appointed. Progress continues looking at the design packages, contamination and procurement. The project will now be procured as a single unit rather than being divided into lots so that holistic decisions can be taken to keep the project moving forward and within budget. The design team and independent QS are working on a revised cost plant with the intention of preparing the tender package to go to the market in May 2021.
Car Parks - Buckingham Road MSCP Refurbishment	1,500,000	Construction is anticipated to commence on site March 2021 and will continue in 2021/22. The budget has been reprofiled in line with anticipated expenditure.
Corporate Buildings - Condition Surveys	123,790	Discussions in progress with Brighton and Hove Council regarding future surveys. Budget reprofiled whilst works agreed.
Connaught Theatre and Studio (Ritz) - Installation of air conditioning	226,280	Additional funding approved December 2020 for a combined ventilation scheme for the Connaught Theatre and Ritz Studio. Works to be tendered for installation in 2021/22.
Disability Discrimination Act Improvements - Rolling programme	30,000	Provision of DDA access doors at the Crematorium Muntham Chapel have been delayed by 12 weeks due to the discovery of asbestos and other works being considered.
Durrington Cemetery Improvements i) Lighting, hearing loop upgrades and a music system ii) Catafalque	92,400	Discussions in progress regarding the scope of works. Additional funding may be required for damp works
Foreshore - Purchase and installation of 32 new beach huts between Esplanade Court and Clarence Court	285,800	Planning approval received for 8 huts which have been installed. Other sites are being considered but will need planning approval and due to lead in times the budget has been reprofiled to 2021/22.

WORTHING BOROUGH COUNCIL

WORTHING BOROUGH COUNCIL - CAPITAL BUDGETS REPROFILED TO FUTURE YEARS

Scheme	Reprofiled Budgets	Reason
Foreshore - Fire Prevention Works to Pier, Southern Pavilion and Seafront Amusements	383,040	A new sprinkler system for the seafront buildings requires a new dedicated water supply and pipework is estimated to cost £810,000, shortfall of approximately £300,000. Works to the Southern Pavilion are under discussion with the new tenant who is carrying out renovation works. Costs for other works are being compiled and when estimates are completed additional resources will be sought.
Housing - Empty Property Grants to bring empty houses back into use	65,000	A list of all the empty properties in Adur and Worthing has been compiled. Only one small grant has been identified and the remaining budget has been reprofiled to 2020/21 for future grants or loans that may arise.
Information and Technology - Extending Ultrafast Fibre Network	300,000	The scheme is progressing well. The budget has been profiled in line with anticipated expenditure profiles.
Information and Technology - Digital Strategy (Partnership Scheme with Worthing Borough Council)	151,050	Approval received for the funding of the revenues and benefits licence and set up costs to be funded from the Digital Strategy Budget. £133,950 reprofiled in 2021/22 in line with anticipated spend.
	53,330	Approval received for the funding of the licence for a low code digital platform, £59,870 profiled in 2020/21 and £47,300 funded in 2021/22.
Museum and Art Gallery - Redevelopment "Let the Light In Project"	89,190	The museum development project "Let the Light In" is ongoing. The application to the Heritage Lottery is to be resubmitted and if successful works are estimated to commence on site May 2024.
Office Equipment - New microphone system	15,900	The Digital Team are considering alternative technologies and solutions. Replacement anticipated in 2021/22.
Pavilion Theatre - Drains realignment, relining and refurbishment	15,000	Works are anticipated to commence on site February 2021, and complete early in 2021/22. The budget has been profiled in line with anticipated expenditure.
Parks and Open Spaces - Replacement of trees affected by Ash Dieback	-40,000	Budget b/f from 2021/22 to fund anticipated expenditure in 2020/21.

WORTHING BOROUGH COUNCIL

WORTHING BOROUGH COUNCIL - CAPITAL BUDGETS REPROFILED TO FUTURE YEARS

Scheme	Reprofiled Budgets	Reason
Play Area Improvements - Palatine Park	100,800	Scheme to be linked in with the provision of an artificial pitch at Palatine Park. Installation now estimated Winter 2021/22.
Public Conveniences - Broadwater Green Pavilion Refurbishment	89,600	Contribution to Broadwater Cricket Club to be used as match funding for a total refurbishment of the pavilion including the refurbishment of the public toilet block. Timescales for works dependent on successful funding bids.
Public Conveniences - Rolling programme of upgrades and improvements	200,000	Sites to be agreed with Executive Member. Budget profiled in line with anticipated expenditure.
Public Conveniences - Church House Ground Pavilion Refurbishment	150,000	Contribution to Bowls Club to be used as match funding for a total refurbishment of the pavilion including the refurbishment of the public toilet block. Timescales for works dependent on successful funding bids.
Hillbarn / Rotary Recreation Ground - Contribution to new changing rooms / building	13,320	Contribution to Chippendale Cricket Club anticipated in 2021/22.
Palatine Park - Provision of an artificial football pitch	916,540	The Football Foundation has approved a capital grant offer of 62% of a total project cost of £916,540 to Worthing Borough Council and Worthing Town Football club Limited. Planning Permission has been granted and tendering completed. Works anticipated in 2021/22.
Splashpoint Leisure Centre - Flume replacement	37,000	Orders to be placed for installation early in 2021/22.
Strategic Property Investments - Investments in commercial property to generate income	47,427,660	Officers are actively looking for properties to purchase but there are few suitable properties available at the current time.
Time for Worthing Website	10,000	Payment structure anticipated 50% at start on scheme and 50% at the end of the project in April 2021.

WORTHING BOROUGH COUNCIL

WORTHING BOROUGH COUNCIL - CAPITAL BUDGETS REPROFILED TO FUTURE YEARS

Scheme	Reprofiled Budgets	Reason
Union Place Site - Development (Externally financed)	573,510	The Council has agreed to enter into a land pooling agreement for the site with partners for the development of approx 200 homes and commercial property. The partners have prepared a development strategy for this site which has been approved by JSC. Budget ring-fenced for WBC costs in the event of the Council buying back the car park.
Worthing Coast Protection Scheme	500,000	A revised approach to the scheme delivery is being undertaken following a review of the OBC by the Environment Agency lead, possibly undertaking works to last 10 years and looking at a larger CPW scheme in 10 years' time.
Total Reprofiled Budgets:	**59,713,970**	

ADUR & WORTHING
COUNCILS

Joint Strategic Committee
2 March 2021
Agenda Item 7

Key Decision [No]

Ward(s) Affected: All, in particular Worthing Central

Carbon Neutral 2030 - Worthing Heat Network

Report by the Director for Digital, Sustainability & Resources

Executive Summary

1. Purpose

1.1. This report sets out the significant progress being made to deliver a flagship heat decarbonisation scheme in the heart of Worthing. Using technology well proven in Europe, the Worthing Heat Network will be one of the very first of its kind in the UK, cost effectively delivering against the Councils' 2030 carbon neutral target, in a large scale scheme already well supported by BEIS, and strongly aligned to national government ambitions in the lead up to COP 26.

1.2. The scheme proposes to deliver a heat network that will enable heat decarbonisation at scale not just for 8 council-owned existing buildings (accommodating staff from both councils), but also for other public sector buildings (WSCC, MoJ, NHS, Police) along with major development sites including the Worthing Integrated Care Centre, Union Place and Teville Gate.

1.3. Adur & Worthing Councils, in leading the development of such scalable infrastructure, will provide a platform for cost effective decarbonisation of heat for multiple organisations, providing the leadership needed to help accelerate reductions in area-wide carbon emissions. Phase 1 of the

Network is expected to save 3,000 tonnes CO2 each year, supporting the shared challenge to become carbon neutral for the council and the area.

1.4. The report seeks to gain approval from Joint Strategic Committee to progress applications to the Heat Network Delivery Unit and the Heat Network Investment Programme in April 2021 for circa £4m, with further reports to JSC in September 2021 (approval to procure) and April 2022 (concessionaire contract award)

1.5. The feasibility of delivering a Worthing Heat Network is well progressed. The project has attracted £300,000 funding from the Government through the Department of Business Energy, and Industrial Strategy (BEIS), its Heat Network Delivery Unit (HNDU) and the Greater South East Energy Hub. Expert technical, commercial and economic support has been provided by BEIS who have recommended the project proceed to submit a funding bid to the Government's Heat Network Investment Programme (HNIP) for Commercialisation and Construction.

1.6. The proposed primary heat source is extraction of waste heat via a heat pump from the **Worthing mains sewer**. This zero carbon solution offers value for money when compared to individual building-level heat pump solutions, and would constitute one of the first innovations of its kind in England, though a successful project operates in Scotland and the technology is well used in Europe.

1.7. This report updates Members on work undertaken since December 2019. The proposed next steps for the Worthing Heat Network are set out at **Section 6**. Members approval is sought to continue working with BEIS, consultants and stakeholders to finalise the draft Outline Business Case (OBC); submit a funding bid to the HNIP for Commercialisation and Construction; and if successful to undertake a procurement process for a private sector provider to deliver the Worthing Heat Network under a finance, design, build operate and manage Concession Contract.

2. Recommendations

2.1. Members are asked to note the good progress made to date with the feasibility work on the Worthing Heat Network and to approve the recommendations set out below to enable project development proceed to the next stage:-

2.2. To develop and submit a funding bid to:

2.2.1. the Heat Network Investment Programme (HNIP, BEIS) for finance to support the Commercialisation & Construction of the heat network, to be submitted on April 2nd 2021; and

2.2.2. To submit a further funding application to the Heat Network Delivery Unit (BEIS), late April 2021, for finance to develop the Full Business Case and prepare a technical specification to support the proposed procurement process should the HNIP bid be successful; and

2.2.3. To approve the allocation of £50,000 match funding by the Councils to support the HNDU bid from the Councils reserves as follows:

Adur District Council £4,760
Worthing Borough Council £45,230

2.3. Delegate authority to the Director of Digital, Sustainability and Resources to:

2.3.1. accept any grant funding to be received into the Council's budget for allocation to development of the heat network project; and to enter into any necessary consultancy contracts arising from the expenditure of the approved budget.

2.4. In anticipation of securing the HNIP Funding, to authorise the Director of Digital, Sustainability and Resources to commence a two staged procurement exercise to establish the final delivery route, model and costs.

2.5. Thereafter, to accept a further report back to Members on the conclusion of the procurement process, to approve the Final Business Case and final costs; seeking approval for the proposed approach to fund the connection fees and heat supply tariffs for council owned buildings.

3. Context

3.1. The opportunity for a heat network (HN) on the Worthing Civic Quarter Site was identified by the council's *Carbon Neutral Plan* as the most economic and efficient way to reduce carbon emissions from heating in key council owned civic buildings in Worthing. The Plan identified that the decarbonisation of heat is a key challenge in achieving the councils' 2030 carbon neutral target as

emissions from gas consumed in buildings is responsible for 32% of the councils' 3,000 tonne/year carbon footprint.

3.2. Due to the high cost of individual air source heat pumps (ASHPs) for large buildings, the Plan recommended exploring opportunity for a heat network[1] for the whole Worthing Civic Quarter Site, as this could deliver a lower cost route to decarbonise heat when compared with individual air source heat pumps for each building.

3.3. The Plan identified that the Worthing Civic Quarter offered an ideal opportunity for a heat network as it accommodates 5 large existing civic buildings, 3 owned by Worthing Borough Council (WBC) and the others by the Ministry of Justice and West Sussex County Council, as well as a planned new health development, the WICC, being delivered by WBC. This could quickly and economically progress the decarbonisation of the council buildings but also the entire Civic Quarter if connected to low carbon heat generation. Discussions have since moved beyond the Civic Quarter to where a Worthing Heat Network for the town centre is the preferred option as discussed in detail in the Outline Business Case (summarised at **Appendix 1**).

3.4. The investigation of this opportunity is a commitment under *Platforms for Our Places* and *SustainableAW 2020-23*. The project is referred to in the Draft Greater Brighton Energy Plan 10 Pledges and in the *Coast2Capital Local Enterprise Partnership's Energy Strategy Action Plan: Energy South2East*.

4. Government support towards the Worthing Civic Quarter Heat Network

4.1. The council has received a significant contribution of finance and expertise from the government to develop the Worthing Heat Network project.

4.2. The Government's Clean Growth Strategy recognises that heat for buildings and industry creates around 32% of total UK emissions and in response, the decarbonisation of heat is a key policy strand with a target of 18% of UK heat to come from heat networks by 2050.

[1] A HN is a system for distributing heat generated in a centralised location, via a network of insulated underground pipes. HNs form an important part of the government's plan to reduce carbon and cut heating bills. They are one of the most cost-effective ways of reducing carbon emissions from heating; their efficiency and carbon-saving potential increases as they expand and increase connections. They provide a unique opportunity to exploit larger scale, lower cost renewable heat sources that otherwise cannot be used.

4.3. The Government has:

4.3.1. Committed to phase out fossil fuel heating, banning new gas boilers in new homes from 2023, and in new non residential buildings from the mid 2030's;

4.3.2. Set up, within the BEIS, the Heat Networks Delivery Unit (HNDU) to provide grant funding and guidance to local authorities to support HN deployment in the UK. HNDU has awarded £23million to local authorities for 250 projects across 150 authorities.

4.3.3. Established through BEIS the Heat Networks Investment Programme (HNIP) with a budget of £320 million to fund HN commercialisation and construction, to increase the number of heat networks built; deliver carbon savings; and create a sustainable heat network market.

4.4. Since autumn 2019, the Head of Finance and Commercial for Heat Networks from HNDU has provided commercial and technical support to the Worthing HN project, attended regular meetings and drafted the Outline Business Case. Three rounds of HNDU funding have been awarded to WBC to progress the Worthing HN scheme (WHN) in addition to further funding from BEIS through the Public Sector Decarbonisation Scheme (PSDS), Low Carbon Skills Fund (LCSF), and Greater South East Energy Hub (GSEEH) totalling £805,917:

Funding award	Funding through	Awarded to Worthing HN project for:
£93,400	HNDU	Development of a WHN Feasibility Study and Worthing Heatmap Reports (AECOM) and to commission a Project Manager to manage the work. See Executive Member Report (March 2020)
£125,000	HNDU	Further Funding for project management and consultancy (1ENERGY) for Stakeholder Engagement, development of an Outline Business Case and a funding bid to HNIP. See Executive Member Report (July 2020)
£39,107	HNDU	To undertake building surveys and technical modelling for further buildings on the network to improve the technical detail of the Outline Business Case (February 2021).
£38,610	GSEEH	A 12 month technical study investigating actual depth, heat and flow rates in the mains sewer being undertaken by RECIRC ENERGY Ltd (December 2020).
£24,800	LCSF	Building Energy Audits (AECOM) for WBC in the Civic Quarter to reduce heat demands in preparation for connection to a future low carbon energy source (December 2020).
£485,000	PSDS	Capital funding to deliver energy efficiency works identified through LCSF bid (Final amount TBC)

£805,917	**TOTAL**

4.5. Finance from BEIS (HNDU) has funded the following elements, 4.6 - 4.8:

The Worthing Civic Quarter Heat Network Feasibility Report (AECOM 2020)

4.6. This identified the wider economic opportunity of a heat network for Worthing Town Centre which could deliver heat decarbonisation at scale using waste heat from Worthing Mains Sewer. The Study concludes;

4.6.1. Strong potential to deliver a successful heat network
4.6.2. A lower cost and quicker route to decarbonising key local buildings
4.6.3. Significant contribution towards delivering on Adur & Worthing Councils' Climate Emergency declaration and Carbon Neutral target
4.6.4. Additional local benefits plus further expansion potential
4.6.5. The availability of government funding through HNDU and HNIP to support project development and delivery.

The Worthing Heatmapping & Masterplanning Report (AECOM 2020)

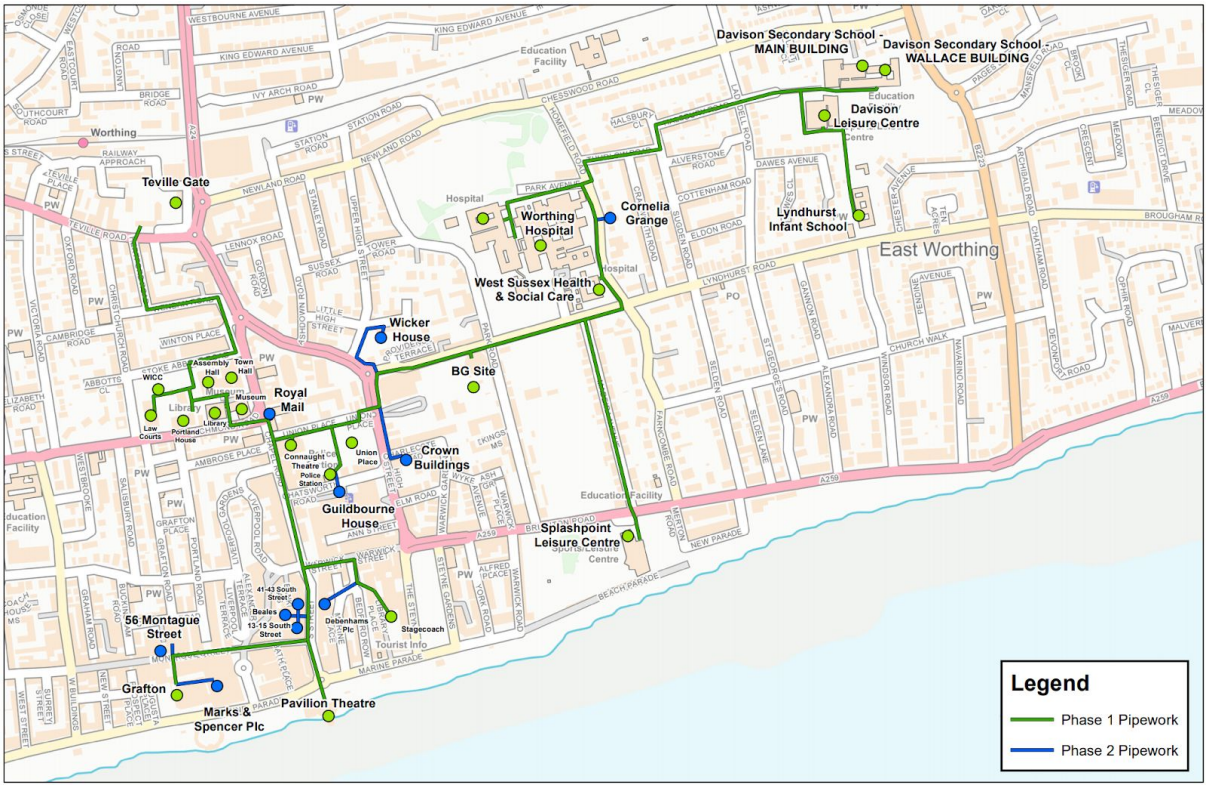
4.7. The report identified heat network opportunity areas across Worthing, providing evidence for policy for the Draft Submission Worthing Local Plan.

4.8. The appointment of consultants GB Partnerships through the West Sussex Estates Partnership to project manage the HN project. The appointment of HN experts 1ENERGY to provide technical and commercial expertise, finalise the Outline Business Case; undertake stakeholder engagement and complete an HNIP funding bid. And further technical modelling and buildings surveys by AECOM.

4.9. It is proposed that WBC proceed to the next stage of development, and to enable this, to apply for funding from government to two funding streams:
4.9.1. To HNIP for Commercialisation and Construction Funding; and
4.9.2. To HNDU for technical support for the procurement process.

5. Worthing Heat Network

5.1. Worthing Heat Network proposed route and connections is illustrated below:



5.2. The WHN consists of 28 connections of which 18 are public sector buildings; with 7 owners (5 in public sector); 10 are new development sites; and of the 28 connections, 16 are WBC owned buildings or sites. See **Appendix 2**. The small number of key offtakers (7) gives the HN a high potential for successful implementation. There are 4 large scale mixed use Planned development on the proposed network. Planning policy is in place through the Draft Worthing Local Plan, to require new development to connect to the heat network.

5.3. A summary of the Draft *Worthing Heat Network Outline Business Case* (OBC) is attached at **Appendix 1**. The OBC summarises that:

5.3.1. a low carbon heat network taking heat from the public sewer via a centralised sewer source heat pump would offer value for money when compared to individual heat pump solutions; and that

5.3.2. the proposed heat network offers a viable investment for a private sector implementation partner.

5.4. The OBC seeks to explore the most cost-effective means of decarbonising building heating and hot water supply for identified buildings. A fundamental

point of assessment was whether the OBC justifies support for the decarbonisation of only Local Authority and public sector owned buildings in the Worthing Civic Quarter; or if it will justify support for the decarbonisation of key buildings within Worthing Town centre. The OBC Economic Case evaluated a number of technical solutions for the decarbonisation of space heating and hot water requirements for the public sector buildings in Worthing's Civic Quarter.

5.5. Several technical solutions were assessed in the Feasibility Study, following which, the Draft OBC identifies that the sewer source heat pump option is the preferred technical solution. An open loop ground source heat pump for the Civic Quarter site was ruled out on technical grounds and due to its limited expansion opportunity. The sewer source heat pump would take advantage of warm water passing through the main sewer which runs beneath High Street (A259), whilst relatively high capital cost in comparison an open loop ground source heat pump solution for the Civic Quarter only, it is the most cost-effective at large scale, it has therefore been identified as the optimum technical solution for this area enabling decarbonisation not just to council buildings but to the wider Worthing area.

5.6. Due to the high heat density of the Civic Quarter combined with the close proximity of new development sites and the hospital, there is a credible expectation that private sector capital could be used to fully develop and operate the WHN under a long term (40 year) concession agreement on the basis that buildings identified and with whom commercial engagement has begun will sign up to the proposed heads of terms for heat supply.

5.7. Key parameters of the WHN are as follows:

Worthing Heat Network: Key parameters
28 Building Connections
23GWh total heat demand
5km highly insulated underground pipes
3MW Sewer Source Heat Pump supplying 20GWh
2454 tonnes CO2 savings per year when fully developed
Construction 2022-5
£11.4 million Construction Costs (current forecast capital spend) HNIP funding bid to be submitted 2nd April 2021

5.8. Approval is sought to proceed to finalise the draft OBC, and apply for government funding ahead of the next stages of Commercialisation.

5.9. Key drivers for the project are:

5.9.1. Heat decarbonisation in Council's corporate estate towards the carbon neutral target

5.9.2. Area wide heat decarbonisation, in existing and planned development.

5.9.3. Reducing Local Authority costs, providing an economic means to decarbonise local authority buildings through lower long term costs than alternative low carbon heat supply options in particular individual heat pump solutions on a building by building case

5.9.4. Regeneration: to support the delivery of major schemes that achieve the highest standards of low carbon development, meeting planning requirements in a technically and economically viable way.

5.9.5. To provide a low carbon option for WBC corporate estate buildings where the heating system has reached the end of its operational life

5.9.6. Reducing low carbon energy costs to customers

5.9.7. Air Quality Improvement

5.9.8. Reputation, providing leadership for heat decarbonisation at scale

5.9.9. Innovation, implementing a pioneering sewer waste heat solution.

5.10. An analysis of main sewer temperature, flow and depth is currently being undertaken. The Feasibility Study (AECOM) estimated a maximum thermal capacity of 3.3MWth could be extracted using heat pump technology. A 12 month Technical Assessment is being undertaken by consultants RECIRC ENERGY Ltd to validate these findings through insertion of probes into the wastewater to undertake monitoring of the main sewer. Initial findings are positive and have estimated c.3MW heat could be extracted.

5.11. Building managers for the neighbouring public sector buildings have been engaged in stakeholder dialogue through this project, see **Section 8**.

5.12. The planned development of the WICC and multi storey car park offer an ideal opportunity to integrate construction of a heat network simultaneously. The timeframe for WICC construction has meant the heat network project has been progressing at speed to try to capture this opportunity.

5.13. The OBC proposes that Worthing Borough Council procure a third party private sector investor to finance, design, fund, build and operate the project under a long term concession arrangement. The details and terms of the procurement arrangement are still to be finalised.

6. Proposed Next Steps

6.1. It is proposed that Worthing Borough Council continue to perform the role of Project Sponsor, progressing with further applications for funding from HNIP and HNDU to support the next stages, which are set out in the table at **6.5**. The Table highlights the points at which reports will be brought to the Joint Strategic Committee to approve progressing from one stage to the next.

6.2. BEIS has recommended that WBC submit a funding bid to HNIP for Commercialisation and Construction (see **Section 9** on HNIP funding). This would provide 100% funding for the Commercialisation phase including procurement. Following an 'End of Commercialisation Review' by HNIP fund managers, funding may be awarded for Construction. Construction funding could part fund heat network construction, and the remaining capital cost would be borne by the Private Sector Partner. No match funding is required from the Council towards the HNIP bid, though resources from Procurement, Finance and Legal will be required to resource the procurement process.

6.3. BEIS also recommended that WBC separately submit a funding bid to HNDU for technical support during the Procurement Phase. The level of funding requested is likely to be in the region of £250-300,00 and it is recommended that the councils' provide match funding of around £50,000 towards this.

6.4. It is proposed these 2 funding bids be submitted in April 2021.

6.5. The proposed next steps are set out below, (and may be subject to change):

NEXT STEPS & GATEWAY STAGES	
Ongoing	Continue Stakeholder Engagement, Offtaker Negotiations, and securing Letters of Intent with Heads of Terms
March 2021	Hold 2nd Investor Day
	Develop Report on sewer heat for the final OBC (RECIRC)
	Finalise the OBC, supported by BEIS, to be submitted with the HNIP application.
2nd April 2021	Submit Funding Bid to HNIP for Commercialisation and Construction
End April 2021	Submit Funding Bid to HNDU for technical, commercial and legal support during a procurement process.

End of April 2021	First stage of procurement exercise to publish a PIN and selection questionnaire seeking expressions of interest.
August 2021	HNIP funding approvals concludes (100 day process)
GATEWAY 1	Award of funding from HNIP for Commercialisation & Construction of Worthing Heat Network
GATEWAY 2	Confirmation of sufficient heat, flow, depth in main sewer to facilitate successful technical delivery of a sewer source heat pump solution
GATEWAY 3	Successful signing of Letters of Intent from key offtakers
September 2021	**Report to Joint Strategic Committee following award of funding from HNIP and HNDU to approve:** **- proposed funding route for Connection Fee and Heat Tariff costs to council owned buildings** **- Progressing the procurement phase**
September 2021	Commence final stages of the procurement for concessionaire
September 2021 - April 2022	Commercialisation Stage including procurement to secure a private sector partner to finance, design, build, operate the WHN.
GATEWAY 4	End of Commercialisation Review by HNIP associated with award of grant funding, and prior to final confirmation of Commercialisation funding
April 2022	**Report to Joint Strategic Committee to approve:** **- the finalised Full Business Case;** **- allocation of finance for Connection Fee and Heat Tariff costs for council owned buildings** **- award of contract to a private sector partner** **- entering into a Connection and Heat Supply Agreement with the the appointed contractor**
April 2022	Award of a Concession Contract to a Private Sector Provider to finance, design, build, operate and manage the Worthing Heat Network
May 2022 onwards	Construction Phase

7. Issues for consideration

7.1. The boilers at Portland House and Worthing Town Hall are at their end of life and replacement is needed. Town Hall boilers also currently supply heat to the Assembly Hall. Budget provision has been allocated in the capital programme for boiler replacement, however, replacement with gas boilers will not meet the council's carbon neutral target.

7.2. Replacement of gas boilers with standalone air source heat pumps in each building is a potential alternative, but would be more costly both in terms of CAPEX and running costs. A comparison of the indicative costs to install air source heat pumps (ASHP) in each building on the proposed HN, compared to the costs of connecting to the HN are set out in **Appendix 3** and further explored in Section 10: Financial Implications. In each case, the costs for the individual air source heat pump in each building are higher. Whilst the costs for remaining with gas fired heating systems are lower than either the ASHP or HN options, this does not offer a way to decarbonise, would not meet the councils' commitment to become carbon neutral by 2030. Furthermore this approach does not account for predicted gas price rises, and may soon be banned under the Government's plans for heat decarbonisation.

7.3. If the councils do not progress plans for a heat network, the council forgo the unique opportunity to show leadership and offer other large scale and public sector heat consumers and developers in Worthing the opportunity to collaborate on a project to decarbonise heat at scale in Worthing.

7.4. It is therefore recommended that the councils continue to progress with next steps for the Worthing Heat Network.

8. Engagement and Communication

8.1. Finance, Legal, Democratic Services, Procurement, Estates, Facilities, Planning, and Place & Economy Teams have provided guidance to the project, and received updates through attendance at regular meetings. The Major Projects Team is closely integrated with the project.

8.2. The Worthing Planning Team has been closely involved with the project. New policy has been developed to drive the successful delivery of a HN for Worthing. Requirements have been added to the *Draft Submission Worthing Local Plan Policy DM17: Energy,* to require connection to the Worthing HN or ensure new development is connection ready in heat HN opportunity areas

8.3. The government has assigned the Head of Finance and Commercial from BEIS HNDU to provide oversight, guidance, financial and technical expertise.

8.4. Regular Stakeholder updates have been held with offtakers: Worthing Theatres & Museums; West Sussex County Council; the Ministry of Justice; Worthing Hospital (Western Sussex NHS Foundation Trust); and developers or their consultants for the Worthing Gasworks site; Union Place site; and the WICC. Offtakers have provided information and site access for feasibility

work. All are processing approvals for the Letter of Intent to be used to demonstrate their interest in connecting to the Worthing Heat Network. There has been a positive response from WBC, the Ministry of Justice, WSCC, the WS NHS Foundation Trust and the Police.

8.5. The Chief Executive of Southern Water has approved the development of a Working Group between SW and WBC and its consultants to agree operational, technical and commercial aspects of connecting to the mains sewer for heat extraction.

8.6. The County Highways Authority have been consulted on Highways considerations and there is no in principle objection to the HN delivery whose pipework will largely be routed along the public carriageway. The Authority is engaged on the national infrastructure panel which is currently looking into the particular needs of heat networks.

8.7. An Investor Day held in Sept 2020 demonstrated a real interest from the private sector in the opportunity presented for a heat network in Worthing. Of 35 attendees, 15 represented energy companies and potential investors. Another Investor Day and further engagement is planned in March 2021.

9. HNIP Funding

9.1. Management of the £320million HNIP grant is run by Triple Point on behalf of BEIS. HNIP offers funding for a) HN Commercialisation and b) Construction. Commercialisation funding is provided at a rate of 100%. The HNIP Guidance sets out that where projects receive commercialisation funding but do not go on to reach financial close, they will not be required to repay the grant providing it can be shown that failure to reach construction funding was beyond the applicant's reasonable control. Construction Funding provides match funding towards capital costs of construction and is assessed on a criteria based approach that includes cost per tonne of carbon saved. As a zero carbon project, the WHN is predicted to score well under this key criteria.

9.2. It is a requirement of HNIP funding that Commercialisation and Construction funding be applied for simultaneously.

9.3. It is expected that the HNIP application will be for circa £4m of Construction funding and the costs for the Commercialisation and Construction bid are still being finalised.

9.4. HNIP guidance uses the term ‘commercialisation’ to describe the HN development stage in which the project sponsor contractually secures investment and future revenues, procures and appoints contractors, obtains relevant permissions and permits, and makes any technical changes required as an outcome of the interplay between the financial and contractual negotiations set out above. The technical, financial and legal ‘transaction’ costs are part of the eligible investment costs that can be included in an HNIP application.

9.5. Subject to the successful ‘end of commercialisation review’ by Triple Point, the fund managers, funding will be made available for the construction phase. The Construction grant or loan will be utilised and match funded by the concessionaire to construct the heat network.

10. Financial Implications

10.1. Initial estimates for Worthing Borough Council owned sites for the capital connection costs and annualised heat supply costs are set out in **Appendix 3**. These are indicative at this stage and are currently being refined in the outline business case and will be confirmed at the Award of Contract Stage. The final costs will be dependent on the level of external funding attracted to the project

10.2. Members should be aware that the proposed heat network will lead to increased annualised heating costs (including maintenance) for the Council and their partner organisations, increasing the annualised cost of heating for the buildings occupied by the Councils from £45,630 to £70,800 an increase of per annum of £25,170.

10.3. The proposal also covers key existing buildings managed by Worthing Borough Council’s contractors for cultural and leisure services. It is unlikely that the Contractors would willingly agree to meet the additional costs associated with the provision of the low carbon heat network, and would likely propose that they are compensated for the additional costs associated with the provision of low-carbon heat as their contractual pricing would have been based on the current heating provision and contractually they have the ability to source their own providers. Overall the potential additional annualised heating costs can be summarised as follows:

	Current cost	Estimated annual cost of heat network	Additional cost	Adur	Worthing	Culture and Leisure providers
	£	£	£	£	£	£
Town Hall	29,610	52,250	22,640	9,060	13,580	
Portland House	16,020	18,550	2,530	1,010	1,520	
Council Administration Buildings	45,630	70,800	25,170	10,070	15,100	0
Other buildings:						
Assembly Hall	14,810	26,130	11,320			11,320
Museum and Art Gallery	8,500	15,600	7,100			7,100
Pavillion Theatre	12,290	26,570	14,280			14,280
Connaught Theatre	9,870	22,690	12,820			12,820
Splashpoint Leisure Centre	156,810	190,420	33,610			33,610
Total	247,910	352,210	104,300	10,070	15,100	79,130
Potential additional cost to each Council				10,070	94,230	

10.4. In addition to the increased annualised running costs, the Council will have to fund a connection cost to the network for the heating infrastructure required in each building. As heating systems are the responsibility of the Worthing Borough Council with respect to the Theatres and Splashpoint Swimming Pool, the Council will have to fund the costs associated with all of the connections at an overall expected capital investment of £993,600.

10.5. The current Capital Programme contains provision for replacement heating systems as follows:

Project	**2020/21 £**	**2021/22 £**	**Total £**
Portland House - Replacement Boilers and Heating upgrade	148,000		148,000
Town Hall and Assembly Hall - Preparatory works for the replacement of the boilers and air conditioning.		100,000	100,000
Total approved budget	148,000	100,000	248,000

These projects have been put on hold pending the consideration of the delivery of the heat network. These budgets should be retained to part fund the Heat Network connection costs associated with the network.

10.6. As the Council does not have sufficient funds to purchase the connections outright, it may have to borrow to fund the cost unless another funding stream is identified. If the funds are borrowed, this will have an additional revenue cost of £27,250 after allowing for the existing capital budgets. External funding will be sought for these Connection Fees via sources such as the Public Sector Decarbonisation Scheme to minimise the financial impact on the Councils.

10.7. Whilst it is clear that the Councils will have to fund additional revenue costs associated with this project of:

Overall costs	Adur	Worthing
	£	£
Additional heating costs	10,070	94,230
Capital costs		27,250
Indicative revenue costs	10,070	121,480

The cost of the heat network is significantly less than other decarbonisation options for the heating of the building. The only technically viable alternative low carbon solution, air source heat pumps, would have a significantly higher annual cost and require a higher level of capital investment. The indicative costs would be £166,750 higher capital expenditure to install ASHPs compared to HN connection for Portland House and the Town Hall, and £552,000 more for all the WBC owned buildings to install ASHPs compared to connecting to the HN as set out in **appendix 3**. In the longer term, the heat network will also offer the Councils better price stability compared to gas costs which may be subject to future carbon taxes and price volatility. The Councils Medium Term Financial Plans will need to be adjusted to reflect the additional costs which will be incurred from 2023/24 onwards.

10.8. Under the current business rate retention scheme, the planning authority retains 50% of the income associated with any renewable energy project after paying any associated levy over to the Treasury. Consequently, Worthing Borough Council will benefit from additional retained business rate income as a result of the construction of the new heat network. However, given the

viability challenges identified by the business case, the consultants have recommended that the benefit of additional business rate income is returned to the operator after deducting an allowance for the Council for the increased heating costs, effectively providing the operator with additional income in order to render the project viable. However there are three risks associated with this approach:

i) The design of the new business rate retention scheme has not yet been finalised. One of the options under active consideration was allowing Council to keep additional rates for a period of 4/5 years only.
ii) Irrespective of the final design, the reset of the whole system will occur regularly and any gain will be lost at the point of reset.
iii) The overall reform of the business rates system.

To effectively manage this risk, the tender documentation will need to be clear that any potential tenderer will only benefit from a share of this gain whilst the Council retains the additional business rate income.

10.9. There is one technical accounting consideration associated with the project, which will not affect the revenue cost of the project but which may impact the balance sheet accounting, IFRIC 12 - Service Concession Arrangements

10.8.1 IFRIC 12 is only applicable to the Councils if the contractor (operator) is providing public services related to the service concession asset on behalf of the local authority. Typically these arrangements involve a private sector entity (the operator) constructing or upgrading (adding to) assets used in the provision of a public service, and operating and maintaining those assets for a specified period of time (e.g a school or a hospital). The provision of a heat network is likely to be outside of the definition of a service provided to the public, although technical advice will be sought on this matter in the next stage of the project.

10.8.2 This accounting standard may require the Council to recognise the heat network as an asset with an associated liability on the balance sheet.

10.8.3 With respect to the accounting treatment within the Council's accounts, the key matter will be whether:
a) the Council controls or regulates what services the operator must provide with the asset, to whom it must provide them, and at what price; and

b) the Council controls – through ownership, beneficial entitlement or otherwise –any significant residual interest in the asset at the end of the term of the arrangement.

10.8.4 Whilst the accounting standard may require the Council to depreciate this asset for the purposes of the statement of accounts, the statutory framework for local authority accounting would see this removed and replaced with the contractual costs.

10.10. The accounting issues around IFRIC 12 and the Business Rates issues referred to above will be further explored and reported on for the next scheduled Joint Strategic Committee report planned for September 2021.

10.11. Partnership funding from WBC budgets has been provided to match the government funding referred to at **paragraph 4.4** was as follows:

Date	Funding award	Funding from	Match funding from WBC
Mar 2020	£93,400	HNDU	£16,400
July 2020	£125,000	HNDU	£0
Feb 2021	£39,107	HNDU	£19,261
Dec 2020	£38,610	GSEEH	£10,820
Dec 2020	£24,800	LCSF	Fully funded
March 2021	£485,000	PSDS	Fully funded
TOTALS			**£46,481**

To take the project further will incur additional professional fees in the region of £250,000. The Councils will bid to the HNDU for funding for the next stage of the project. However the Councils will need to make a match funding contribution of £50,000 towards the costs to ensure that the funding is levered in. Members should note that if the Councils are unsuccessful in this bid, and a bid to other sources of Government funding is unsuccessful, a further report will need to be presented to secure the full budget for these fees.

11. Legal Implications

11.1. The Climate Change Act 2008 (2050 Target Amendment) Order 2019 came into force on 27th June 2019 and increased the UK's 2050 net greenhouse gas emissions reduction target under The Climate Change Act 2008 from 80% to 100%.

11.2. Under Section 111 of the Local Government Act 1972, the Council has the power to do anything that is calculated to facilitate, or which is conducive or incidental to, the discharge of any of their functions.

11.3. s1 of the Localism Act 2011 empowers the Council to do anything an individual can do apart from that which is specifically prohibited by pre-existing legislation

11.4. Section 3(1) of the Local Government Act 1999 (LGA 1999) contains a general duty on a best value authority to make arrangements to secure continuous improvement in the way in which its functions are exercised, having regard to a combination of economy, efficiency and effectiveness.

11.5. s1 Local Government (Contracts) Act 1997 confers power on the Council to enter into a contract for the provision of making available assets or services for the purposes of, or in connection with, the discharge of the function by the Council.

11.6. When accepting payment of Grant Funds, it is important that the Council knows, understands and complies with the terms and conditions upon which the grant funding has been made.

11.7. When entering into a public contract, the authority is required to comply with the Councils' Contract Standing Orders found at Part 4 of the Councils' constitution. Where the Contract is an above threshold contract works or services as defined by the Public Contract Regulations 2015 any procurement exercise to contract for those goods and services must be conducted in accordance with those Regulations (which are retained law by virtue of s29 of the European Union (Future Relationship) Act 2020).

11.8. On commencement of the first stage procurement for a delivery partner and or contractor to build out the heat network, it will be important to note to those companies expressing an interest, that an award of contract after the second stage procurement will be subject to the following conditions:

- Confirmation of the successful HNIP Funding Application;
- Approval of Construction funding from HNIP following the 'end of Commercialisation Review;
- Member approval for the developed final scheme and authorisation of contract award;

and, in the event the conditions are not achieved, the Council will withdraw or abandon the tender process without payment of damages or payment of wasted or lost costs of any tenderer as a result of that withdrawal or abandonment at any time prior to executed contract.

Background Papers

- Worthing Civic Quarter Heat Network Feasibility Report (AECOM 2020)
- Worthing Heat Mapping and Masterplanning Study (AECOM 2020)
- JAW/032/19-20 Worthing Civic Heat Network Funding Approval
- JAW/008/20-21 Worthing Civic Quarter Heat Network feasibility stage 2
- Platforms for our Places - Going Further (2020-2022): Unlocking the Power of People, Communities and our Local Geographies JSC December 2019
- JSC 09.07.2019: Climate Emergency Becoming Carbon Neutral by 2030,
- JSC 03.12.2019: Working towards the 2030 target - Adur & Worthing Councils' Carbon Neutral Plan
- JSC, December 2019 Investing for the future: Capital Programme 2020/21 to 2022/23 (Corporate Investment Strategy 2020-2023)
- Adur & Worthing Councils Carbon Neutral Plan, December 2019 (AECOM)
- SustainableAW 2020-23
- Item 8: Greater Brighton Energy Plan and Project List of the Draft Greater Brighton Energy Plan (Greater Brighton Economic Board 14th July 2020)
- BEIS Heat Networks Delivery Unit (HNDU)
- BEIS Heat Network Investment Programme

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Sustainability & Risk Assessment

Economic

- The Heat Network Study seeks to find an economic pathway to decarbonise heat in Worthing. Transition to a low carbon economy is vital to provide future energy systems resilience, and to address and reduce potential impacts of climate change

2. Social

2.1 Social Value

- By securing affordable, low carbon energy into the future, the councils protect budgets from future energy price rises, drawing less budget into council operational costs away from services delivery that benefit local communities.

2.2 Equality Issues

- The impacts of climate change are predicted to impact on all communities, but the greatest impact is predicted to impact the most vulnerable communities. It is imperative that all is done to mitigate climate change. A requirement for the WHN to operate under the Heat Trust Scheme will ensure customer service standards are upheld.

2.3 Community Safety Issues (Section 17)

- Matter considered and no issues identified.

2.4 Human Rights Issues

- The impacts of climate change are predicted to impact on all communities, but the greatest impact is predicted to impact the most vulnerable communities. It is imperative that all is done to mitigate climate change.

3. Environmental

- The key driver for the Councils' Climate Emergency Declaration and commitment towards becoming carbon neutral by 2030, is to avert the predicted catastrophic impacts of climate change on the environment, economy and communities. The proposed WHN would operate with low local emissions with air quality impacts resulting from the SSHP compared with heating from gas consumption and emissions from gas fired boilers

4. Governance

- The investigation of WHN is a commitment under *Platforms for Our Places* and *SustainableAW 2020-23*. The project is referred to in the Draft Greater Brighton Energy Plan 10 Pledges and in the *Coast2Capital Local Enterprise Partnership's Energy Strategy Action Plan: Energy South2East*.

Appendix 1 - Summary of the Draft Worthing Heat Network Outline Business Case

Worthing Heat Network

Draft Outline Business Case (Summary)

February 2021

1. Executive Summary

Overview

1.1. Adur and Worthing have set the ambitious goal of meeting net-zero carbon dioxide and equivalent emission with its own buildings by 2030;

1.2. The Councils' Carbon Neutral Plan developed in December 2019 (https://www.adur-worthing.gov.uk/sustainable-aw/carbon-reduction/) identified as a medium-high priority the need to replace the heating systems of Council owned buildings with heat pumps (REF H1) and to explore the possibility of a potential low carbon heat network around the Worthing Civic Quarter (REF H2).

1.3. This business case summarises that recommendation and has assessed that a low carbon heat network taking heat from the public sewer via a centralised sewer source heat pump would offer value for money when compared to individual heat pump solutions.

1.4. Further, due to the high heat density of the civic quarter combined with the close proximity of new developments and the hospital that there is a credible expectation that private sector capital could be used to fully develop and operate such a heat network under a concession agreement on the basis that buildings identified and with whom commercial engagement has begun will sign up to the proposed heads of terms for heat supply.

1.5. It is estimated that the heat network option would save in excess of 3,000 tonnes of CO2e each year when fully developed when compared to the current gas heating of public and wider buildings proposed to be connected to the network.

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2. Strategic Case

Summary

2.1. The Worthing Heat Network is a key strategic project for Worthing Borough Council (WBC), who are committed to: the decarbonisation of the council estate through its commitment to become carbon neutral by 2030; and the decarbonisation of the wider Worthing area, showing leadership through facilitating means for others to decarbonise.

2.2. The decarbonisation of heat is identified as a key challenge in the achievement of the Council's carbon neutral target, being responsible for over ⅓ of council emissions. Heating use is also responsible for ⅓ of carbon emissions at national and Worthing Borough level.

2.3. The Council's Carbon Neutral Plan (2019) maps out the need to improve buildings energy efficiency; switching to low carbon heat sources; and the uptake of low and zero carbon technologies. It identified the opportunity for a heat network anchored at the Worthing Civic Quarter Site which accommodates 5 large existing publicly owned civic buildings, and the planned new public sector development, the Worthing Integrated Care Centre (WICC).

2.4. During 2020, significant progress has been made investigating the opportunity to develop the heat network, including a Worthing Civic Quarter Heat Network feasibility Study (AECOM 2020) and Worthing Heat Map Study (AECOM 2020).

2.5. On investigating the technical solutions to provide renewable heat to the heat network, WBC has chosen the sewer source heat pump option: a more expensive but ambitious option that could provide heat at a larger scale that would enable decarbonisation not just to council buildings but to the wider Worthing area.

2.6. Considerable Stakeholder Engagement has been undertaken, with potential offtakers, public sector partners, Southern Water the Highways Authority (WSCC); and the Heat Network Sector. The development work has been well supported and resourced by BEIS HNDU through both technical, economic and commercial support, and funding for consultants to undertake Feasibility and Development Plan work.

2.7. The proposed Heat Network identifies an initial network of 28 buildings or sites across 3 phases. Of these buildings 16 are owned by WBC, providing the heat network with a strong opportunity for successful delivery. Of the remaining buildings, 10 are owned by public sector partners. There are 4 large scale mixed use development on the proposed network. Planning policy is in place through the Draft Worthing Local Plan, to require new development to connect to the heat network.

Key drivers for the project are:

- Heat decarbonisation in Council's corporate estate towards the carbon neutral target (16 of the 28 sites on the proposed heat network are sites or buildings in WBC ownership)
- Area wide heat decarbonisation, in existing and planned development.
- Reducing Local Authority Costs, to provide an economic means to decarbonise local authority buildings, offering lower long term costs than alternative low carbon heat supply

options in particular the provision of low decarbonisation solutions on a building by building case

- Minimising public capital at risk, where public capital is put at risk ensuring that a social rate of return is assessed achievable and the option proposed is deliverable
- Regeneration, to support the delivery of major schemes that achieve the highest standards of low carbon development, meeting planning requirements, in a technically and economically viable way
- To provide a low carbon option for WBC corporate estate buildings where the heating system has reached the end of its operational life
- Reducing low carbon energy costs to customers
- Air Quality Improvement
- Reputation
- Innovation

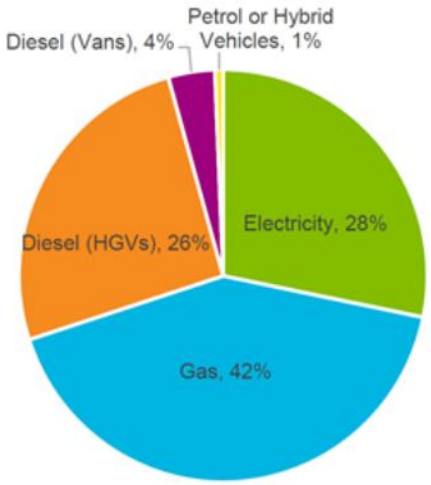
BACKGROUND ON THE WORTHING HEAT NETWORK

2.8. The opportunity for a heat network in Worthing was identified in the council's Carbon Neutral Plan produced by AECOM in 2019, following the councils' declaration of Climate Emergency and commitment to work towards becoming carbon neutral by 2030.

Carbon Neutral Plan

2.9. A core element of achieving the councils' carbon neutral status is the decarbonisation of heating systems, representing the largest proportion of the councils' own baseline emissions in the Carbon Neutral Plan (42% of emissions are attributed to gas consumption).

Figure 2. Scope 1 & 2 emissions by fuel type (2018-19)



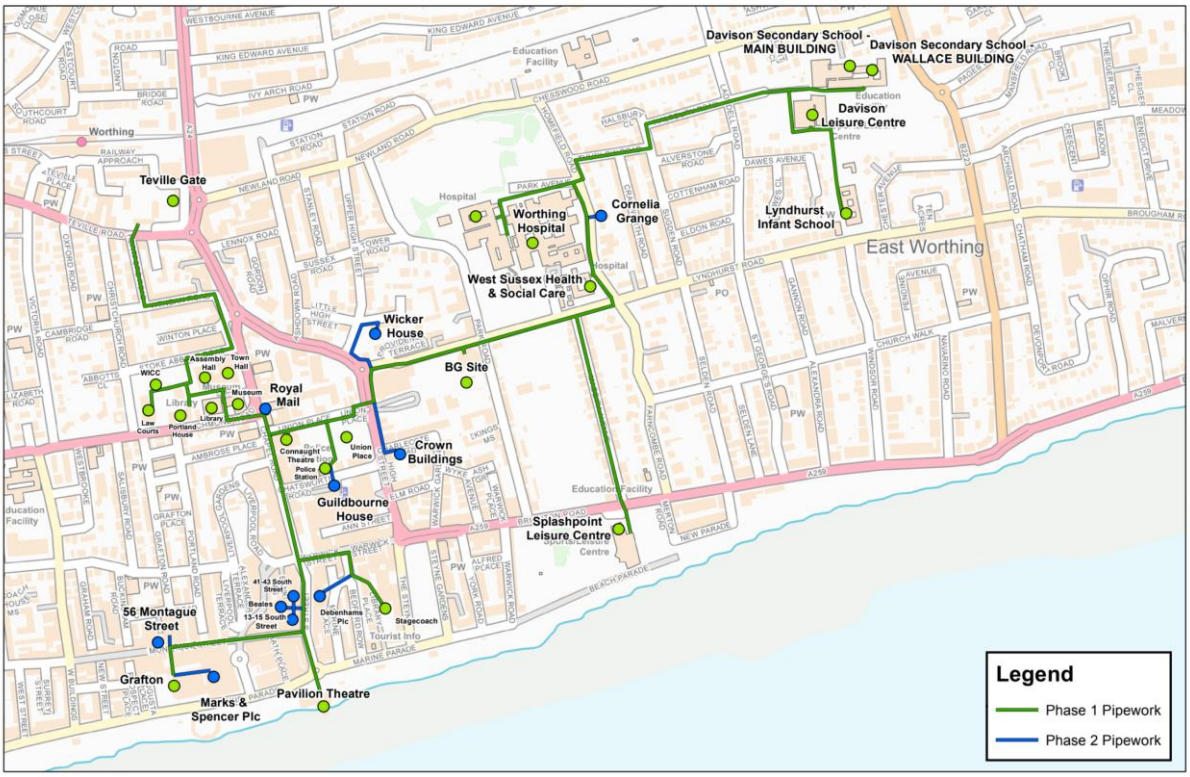
2.10. The Plan identifies that the Councils will need to actively work towards enabling buildings to reduce heat and power demands through fabric efficiency improvements and that all buildings will need to phase out use of natural gas, switching from gas to low and zero carbon heat sources, with District Energy Networks recognised as a part of the strategy to achieve this goal. The Plan identified the potential opportunity for a low carbon heat network in and around the Worthing Civic Quarter and Worthing Town Centre and recommended Worthing Borough Council undertake a feasibility study to assess the technical feasibility and financial

viability of delivering a heat-pump led heat network in and around the two identified sites. The Plan identified that a heat network for Worthing could provide the most efficient method of decarbonising heat in Worthing due to

- economic efficiencies of scale,
- providing an easy method for existing buildings to decarbonise by connecting to the heat network, and through enabling use of wasted sources of heat.

2.11. The Plan identified that the Worthing Civic Quarter offered the ideal opportunity for a heat network as it accommodates 5 large existing civic buildings, 3 owned by WBC and the others by the Ministry of Justice and West Sussex County Council, and a planned new Health development, the WICC, being delivered by WBC. This could quickly and economically progress the decarbonisation of the council buildings but also the entire Civic Quarter if connected to low carbon heat generation.

Worthing Phase 1 & 2 DEN Pipework



PROGRESS ON WORTHING HEAT NETWORK DEVELOPMENT

2.12. This work has progressed at speed over a 12 month period, driven by the urgency of the 2030 carbon neutral target, and 2050 Worthing carbon neutral target, and the imminent redevelopment on the Worthing Civic Quarter Site of a Worthing Integrated Care Centre.

Progress on the development of the heat network opportunity Phase 1: March - Sept 2020

2.13. WBC applied for funding from BEIS HNDU and was awarded finance to undertake a Heat Map Study and Heat Network Feasibility Study and for project management. AECOM was appointed in March 2020 and finalised the Studies in September. The studies concluded that there was:

- High potential to deliver a successful, economically viable heat network for the Worthing Civic Quarter based around a ground source or sewer source heat pump
- Potential for a lower cost and quicker route to decarbonising key local buildings
- Opportunity to deliver on Adur & Worthing Councils' Climate Emergency declaration and Carbon Neutral target and their UK100 Cities commitment to facilitate 100% clean energy to the Borough through an expanded network able to decarbonise the wider Worthing area
- Opportunity to deliver multiple local benefits such as mitigating poor air quality, supply of affordable heat to homes in addition to potential for further expansion

2.14. The Feasibility Study identified a potential smaller technical solution for a campus specific heat network for the Civic Quarter, but WBC preferred to explore a scheme with greater opportunity for expansion as this aligned more strongly with the councils ambition to provide agency to decarbonise not just its own buildings but the wider area. The sewer source heat pump option (SSHP) offered greater capacity to provide the heat demanded by the wider scheme, and consequently the SSHP was chosen to be progressed.

2.15. Alongside the technical modelling of potential heat network solutions, engagement with the owners and building managers of the Civic Quarter buildings was initiated with Worthing Theatres and Museums Trust, West Sussex County Council, the Ministry of Justice and the design team of the WICC building. Interest and support was established and regular updates held with this offtaker group.

Investor Day 10th September 2020

2.16. In September 2020 an Investor Day was held to gauge interest from the market for the heat network proposition. 35 attended including energy companies and potential investors. Constructive discussions were held on procurement, adapting existing buildings, technical solutions, the potential business and delivery models. The Investor Day demonstrated a real interest from the private sector in the opportunity presented for a heat network in Worthing. Companies that attended included:

- 1Energy Group Limited
- Amber Infrastructure
- Ameresco
- Ancala (LEEP)
- Asper Investment Management
- BSW Heating Ltd
- DWPF
- Eco50
- EDF
- Enerza Solutions Limited
- Engie
- Grant Thornton UK LLP
- HermeticaBlack
- Landmark
- QMPF LLP
- SDCL
- SSE
- Sustainable Development Capital
- Sustainable Energy Developments Ltd
- Switch 2
- Triplepoint
- Uniper Energy
- Vattenfall
- Veolia – Eneteq Services Ltd

- Vital Energi Utilities Ltd

Progress on the development of the heat network opportunity Phase 2: Sept 2020 - March 2021

2.17. After finalising the studies, to progress the scheme, a further funding bid was submitted to HNDU in July 2020 for stakeholder engagement, support developing an outline business case (OBC) and funding bid to HNIP and further project management support.

2.18. Further analysis was undertaken on how to improve the energy efficiency of the historic buildings on the Civic Quarter site through fabric and services improvements.

Analysis of main sewer temperature, flow and depth

2.19. The AECOM Feasibility Study identified it may be feasible to extract c. 2MW of heat from the sewer. To confirm the accuracy of this assessment, WBC commissioned a further 12 month study to examine the heat content of the sewer through insertion of probes into the wastewater near to the identified extraction point. WBC secured match funding from the South East Energy Hub to undertake monitoring of the main sewer close to the civic centre. RECIRC ENERGY Ltd have been commissioned to undertake this work, and successfully inserted a probe into the sewer in late December 2020. Initial analyses show there is sufficient wastewater flow to meet the 100% of the heat demand during January for Phase 1. However, flow rates are lower than expected but a technical solution is expected to overcome this.

Progress on the development of the heat network opportunity Phase 3: Jan - March 2021

2.20. A 3rd successful application to HNDU in November 2020 provides further match funding to undertake further detailed modelling of buildings on the wider identified network.

DRIVERS FOR THE WORTHING HEAT NETWORK

2.21. Primary Drivers are shown in purple.

ENVIRONMENTAL	
Heat decarbonisation in Council's corporate estate towards the carbon neutral target	- Adur & Worthing Councils have baseline emissions of 3000tCO2/yr of which 42% are attributed to gas use for space and water heating and the crematorium. - 16 of the 28 sites on the proposed heat network are sites or buildings currently in WBC ownership
Area wide heat decarbonisation	- Gas use, currently used for the majority of heating represents 34% of the total annual emissions from all sectors in Worthing. - The sewer source heat pump option was chosen specifically as it provides greater opportunity for expansion across Worthing to benefit other organisations, developers and local residents and contribute to the decarbonisation of heat in Worthing. - The Strategic decarbonisation of heat across the Worthing area could not be achieved as quickly by any other means than delivering a heat network.
Air Quality Improvement	- To support compliance or exceedance of local air quality standards under Local Air Pollution Prevention and Control (LAPPC) regimes.

ECONOMIC & FINANCIAL	
Reducing Local Authority Costs	- To provide an economic means to decarbonise local authority buildings, offering lower long term costs than alternative low carbon heat supply options in particular the provision of low decarbonisation solutions on a building by building case. - Ability to demonstrate social value for money and ensuring that the cost of low carbon energy is priced fairly.
Minimising public capital at risk	- Where public capital is put at risk ensuring that a social rate of return is assessed achievable and the option proposed is deliverable
Regeneration	- To support the delivery of major schemes within Worthing. And to support new development in Worthing achieve the highest standards of low carbon development in a technically and economically viable way.
Job Creation & Stimulation of the Local Economy	- To provide opportunities for the procurement of construction, operation and maintenance contracts that may include provisions to encourage local employment and skills development.
Contract or Service Value for Money	- To provide Value for Money to WBC in terms of: minimising the cost of resources and inputs; ensuring the relationship between the intended outputs and the results of local authority spending are effective and making sure the way the public spending is allocated means services, outputs and outcomes benefits those it was intended to benefit.
TECHNICAL	
Innovation	- The Worthing heat networks proposes to use an innovative sewer source heat supply technology, which may prove to be a first use of this technology in England, but will certainly be one of the frontrunner schemes that demonstrate the effective use of this widely available local heat source.
Resolving Performance Issues with existing building heat systems	- WBC buildings are currently served by conventional gas and heating systems which in several of the buildings have reached their end of life and require replacement. This is the case for Portland House, Worthing Town Hall and Assembly Hall.
Energy Security & Resilience	- The proposed heat network is based on a local, renewable, waste heat source. Heat networks provide short-term energy resilience in the form of the heat stored within the system, and can provide long term resilience through the connection of multiple local heat sources. In the longer term, the use of local renewable heat sources have the potential to provide price stability through reduced exposure to wider market changes in gas commodity prices.
System Reliability & Maintainability	- To provide improved reliability and maintainability, avoiding the need for replacement of large scale individual heating plant in each of the buildings. A well designed, efficient heat network can improve the reliability and availability of heating systems by using High standard design, installation, commissioning and maintenance as per CIBSE/ADE Heat Networks Code of Practice.
SOCIAL	
Reducing low carbon	- A well designed, efficient heat network can provide competitive prices that

energy costs to customers	can compete economically with alternative low carbon heat supply options.
Alleviating fuel poverty	- They may be potential to expand the scheme to target properties occupied by residents on high cost fuels or in fuel poverty and design tariff structures to ensure lower income customers are able to afford adequate heat to their homes.
Customer satisfaction and Protection of vulnerable customers	- Use of the Heat Trust Scheme to promote best practice, innovation and continuous improvement in customer service and apply strict customer service standards to heat suppliers.
• POLITICAL	
Reputation	- Delivering a heat network will offer the opportunity for the council to meet its own council decarbonisation targets and to lead on supporting the decarbonisation of heat at scale across the area. - A heat network can provide the local authority with an opportunity to secure means to deliver low carbon, efficient, effective and value-for-money heat. It offers the opportunity for large organisations and developers and housing providers to connect into a local low carbon heat supply thereby supporting the large scale decarbonisation of the area. - A heat network can also increase the local public's awareness of the services provided by the council and its ability to deliver sustainable development and low carbon economic growth.
Compliance with national or regional policies	- To comply with regional and national policy & legislation: Climate Change Act; Environmental Protection Act; Environment Act; Planning & Compulsory Purchase Act; National Planning Policy Framework; Clean Growth Strategy; Building Regulations Part L; The Future of Heating; Heat Networks (metering and billing) Regulations - To comply with regional policy: South2East Energy Strategy; Greater Brighton Energy Plan; West Sussex Energy Strategy.
LEGAL	
Compliance with regulations; planning policy; and heat network metering/billing regulations	- To comply with regional and national policy & legislation: Climate Change Act; Environmental Protection Act; Environment Act; Planning & Compulsory Purchase Act; National Planning Policy Framework; Clean Growth Strategy; Building Regulations Part L; The Future of Heating; Heat Networks (metering and billing) Regulations; Worthing Local Plan (2021 Draft)
CIRCUMSTANTIAL	
Existing building or estate heating system reaching the end of its operational life	- The heating system in Portland House and Worthing Town Hall (which also supplies the Assembly Hall) have come to the end of their life and therefore require replacement. To meet the councils' carbon neutral commitment, these must be low carbon systems.
Planned new development (identified as a potential anchor loads for the area wide	- The WICC development on the Worthing Civic Quarter Site is one of the key drivers for this project, offering an opportunity to lay essential pipework in the Civic Quarter and install an energy centre to support the heat network. - The regeneration sites allocated in the (Draft) Worthing Local Plan also

network)	provide opportunities to connect up large mixed use developments to the Worthing Heat Network. These include the following allocated sites Union Place; Teville Gate; Grafton; British Gas site; and Stagecoach site. Of these, only Stagecoach and the British Gas site are not in WBC ownership. - Planning has a significant role in the delivery of low carbon infrastructure. The deployment of the Worthing heat networks will help WBC to implement and enforce planning policy for low carbon development through the (Draft) Local Plan Policy DM16 SUSTAINABLE DESIGN and DM17 - ENERGY. - Policy DM17 - ENERGY aims to increase distributed energy infrastructure in new development and service existing built environment. It allocates specific requirements in relation to the Worthing Heat Network.
Capital funding available	- Funding available from the government through the Heat Networks Investment Programme can improve the economic viability of the heat network and unlock delivery of the scheme. - Finance has been allocated by WBC for replacement heating systems in the WBC Capital Investment Strategy.
Local heat source identified which could supply heat to buildings via a heat network	- The proposed heat network takes into account all potential heat sources in the local area to utilise them to the best effect. Heat from the mains sewer in Worthing has been identified as the best potential means to provide heat at scale from a renewable waste heat source. A heat network connecting waste heat to consumers can increase efficiency of the local area as a whole.

3. Economic Case

3.1. The Economic Case will seek to evaluate, both quantitatively and qualitatively, the relative costs and benefits of options to decarbonise heating within Worthing. It will do so in light of the Strategic Case's key priorities (among others):

- Maximise carbon savings with regards to space heating and domestic hot water;
- Ensure no customer detriment against a zero-carbon counterfactual heating solution;
- Option selected should be assessed to be deliverable with a good level of confidence;

3.2. A fundamental point of assessment is whether this outline business case will seek to justify support for the decarbonisation of only Local Authority / wider public sector owned buildings in the Worthing Civic Quarter; or if it will justify support for the decarbonisation of key buildings within Worthing Town centre.

3.3. Key technical options considered:

Option #	Option Title	Option Description
Do Nothing	Continue with gas	In this option no action is taken to decarbonise the heating of key buildings in Worthing.
BAU	Alternative heat decarbonisation	Adur & Worthing Councils have jointly announced a climate emergency. As such, all council buildings and wider public sector buildings will need to decarbonize in line with the 2030 net zero target set. This option assesses the capital and on-going cost of a building level decarbonisation strategy for the civic quarter.
1	Civic Quarter: GSHP O/L	An open loop ground source heat pump is installed in the Civic Quarter. It is sized to meet the space heat and domestic hot water demands of the Civic Quarter buildings only.
2	Civic Quarter: SSHP	A sewer source heat pump extracts heat from the sewer main adjacent to the Union Place development and accesses Southern Water's sewer main that is estimated to have a flow rate of between 1,250-2,070 l/s or equivalent to 3.3MWth of recoverable heat capacity;
3A	Appraising technologies for the wider decarbonisation of the town centre	A high-level assessment of the different technologies compared against the 3.3MW SSHP option 2 to assess the relative benefits of early technology selection to enable subsequent town centre decarbonisation.
3B	Civic Quarter + wider expansion: SSHP	As with Option 2 but an additional closed loop ground array with GSHP would be installed at either Homefield Park or Davison Leisure Centre playing fields (as with Option 2).

3.4. Several alternative options were considered for the Civic Quarter scheme but ruled out due to technical impediments:

- **A closed loop ground source heat pump solution within the Civic Quarter**. This was ruled out due to the impracticalities of drilling 145 piles spaced 5.7m apart at 150m

depth in the WICC and MSCP development site. Further the risk of the ground freezing as well as the potential of ground movement potentially causing structural damage to civic quarter buildings was assessed to be too great a risk;

- **Air source heat pump within WICC**. The possibility of a large ASHP being installed either on the roof of the WICC or within the MSCP was considered. While it was assessed that up to 2MWth and 4MWth could be installed in the respective buildings this option was ruled out for each building on the following grounds:
    - the WICC project team confirmed on a stakeholder call that it would not be possible to incorporate an ASHP solution of this scale into the scheme design;

Do Nothing

3.5. The "do nothing" case assumes that each building continues to use their current heating system and any planned for fabric improvements. It is important to note that the WICC site, as a new development in the absence of a wider heat network, would be expected to adopt low/zero carbon heating technology such as an Air Source Heat Pump. As such the WICC's do nothing and BAU assessment is the same across both options.

3.6. Below is a table that sets out the estimated revenue/capital cost of maintaining/replacing like-for-like the existing system and the annual carbon emissions of adopting this approach for the Civic Quarter:

Building Text	Annual fuel consumption kWh	Annual cost of fuel £/year	Annual maintenance charge £/year	Total annual revenue cost £/year	Estimated cost of replacement £	Estimated year of replacement Year	Annual heat load kWh/year	Carbon emissions T/year	Net Present Cost (3.5% 40Y) £NPC	Levelised financial cost of heat (3.5% 40Y) p/kWh	Social Net Present Cost (3.5% 40Y) £NPC	Levelised social cost of heat (3.5% 40Y) p/kWh
Town Hall & Assembly Hall	1,238,361	42,983	4,321	47,304	200,000	2020	990,689	228	1,527,593	7.10	2,261,547	10.51
Portland House	210,523	7,158	4,839	11,996	50,850	2022	181,050	39	363,823	9.25	488,596	12.42
Museum	234,535	9,264	2,383	11,647	20,160	2030	201,700	43	314,840	7.18	453,844	10.36
Library	178,375	7,568	1,890	9,458	38,100	2030	153,402	33	262,325	7.87	368,045	11.04
Law Courts	407,948	13,319	2,880	16,199	61,800	2022	350,835	75	476,381	6.25	718,164	9.42
WICC	123,567	17,546	5,600	23,146	140,000	2022	308,916	19	714,250	10.64	775,889	11.56
Total	2,393,308	97,839	21,912	119,751	510,910		2,186,592	436	3,659,213	7.39	5,066,085	10.57

3.7. The collective annual emissions of the civic quarter buildings represent approximately 436 tonnes of CO2 equivalent gases. Further the combustion of natural gas causes other gases, present in air, to oxidise resulting in local air quality impairment primarily through the creation of Nitrogen Oxide (NOx). This is not an insignificant contribution to local emissions.

3.8. Below is a table that sets out the estimated revenue/capital cost of maintaining/replacing like-for-like the existing system and the annual carbon emissions of adopting this approach for the Civic Quarter and Union Place – this is to allow comparative benefits when looking at Option 2: Sewer Source Heat Pump + Union Place:

Building Text	Annual fuel consumption kWh	Annual cost of fuel £/year	Annual maintenance charge £/year	Total annual revenue cost £/year	Estimated cost of replacement £	Estimated year of replacement Year	Annual heat load kWh/year	Carbon emissions T/year	Net Present Cost (3.5% 40Y) £NPC	Levelised financial cost of heat (3.5% 40Y) p/kWh	Social Net Present Cost (3.5% 40Y) £NPC	Levelised social cost of heat (3.5% 40Y) p/kWh
Town Hall & Assembly Hall	1,238,361	42,983	4,321	47,304	200,000	2020	990,689	228	1,527,593	7.10	2,261,547	10.51
Portland House	210,523	7,158	4,839	11,996	50,850	2022	181,050	39	363,823	9.25	488,596	12.42
Museum	234,535	9,264	2,383	11,647	20,160	2030	201,700	43	314,840	7.18	453,844	10.36
Library	178,375	7,568	1,890	9,458	38,100	2030	153,402	33	262,325	7.87	368,045	11.04
Law Courts	407,948	13,319	2,880	16,199	61,800	2022	350,835	75	476,381	6.25	718,164	9.42
WICC	123,567	17,546	5,600	23,146	140,000	2022	308,916	19	714,250	10.64	775,889	11.56
Union Place Hotel	59,560	8,458	1,208	9,665	48,300	2022	148,900	9	285,462	8.82	315,173	9.74
UP Comm Phase 1	7,133	1,013	123	1,135	4,900	2025	17,832	1	31,623	8.16	35,181	9.08
UP Resi Phase 1	264,967	37,625	15,943	53,568	637,700	2025	662,418	40	1,968,912	13.68	2,101,086	14.60
UP Resi Phase 2	37,554	5,333	2,275	7,608	91,000	2025	93,886	6	280,134	13.73	298,867	14.65
UP Comm Phase 2	4,427	629	88	716	3,500	2025	11,068	1	20,427	8.49	22,636	9.41
Total	2,766,950	150,896	41,547	192,443	1,296,310		3,120,697	493	6,245,771	8.11	7,839,027	10.99

3.9. Union Place buildings have been assumed to adhere to the Future Homes Standards and therefore ASHP technology has been assumed for heating requirements with an assumed £700/kW capacity assumed (AECOM), 2.5% of capex annual maintenance charge and a Seasonal Coefficient of Performance (SCOP) of the heat pump of 2.50.

3.10. The collective annual emissions of the civic quarter buildings + Union Place represent approximately 493 tonnes of CO2 equivalent gases representing an additional 57 TCO2e/year when compared to the Civic Quarter only.

3.11. Below is a table that sets out the estimated revenue/capital cost of maintaining/replacing like-for-like the existing system and the annual carbon emissions of adopting this approach for the key Worthing town centre buildings – this is to allow comparative benefits when looking at whole town centre decarbonisation options:

Building Text	Annual fuel consumption kWh	Annual cost of fuel £/year	Annual maintenance charge £/year	Total annual revenue cost £/year	Estimated cost of replacement £	Estimated year of replacement Year	Annual heat load kWh/year	Average carbon emissions (20Y) T/year	Net Present Cost (3.5% 40Y) £NPC	Levelised financial cost of heat (3.5% 40Y) p/kWh	Social Net Present Cost (3.5% 40Y) £NPC	Levelised social cost of heat (3.5% 40Y) p/kWh
Town Hall & Assembly Hall	1,238,361	42,983	4,321	47,304	200,000	2020	990,689	188	1,527,593	7.10	2,145,327	9.97
Portland House	210,523	7,158	4,839	11,996	50,850	2022	181,050	32	363,823	9.25	468,839	11.92
Museum	234,535	9,264	2,383	11,647	20,160	2030	201,700	36	314,840	7.18	431,833	9.85
Library	178,375	7,568	1,890	9,458	38,100	2030	153,402	27	262,325	7.87	351,304	10.54
Law Courts	407,948	13,319	2,880	16,199	61,800	2022	350,835	62	476,381	6.25	679,879	8.92
WICC	123,567	17,546	5,600	23,146	140,000	2022	308,916	19	714,250	10.64	775,889	11.56
Union Place Hotel	59,560	8,458	1,208	9,665	48,300	2022	148,900	9	285,462	8.82	315,173	9.74
UP Comm Phase 1	7,133	1,013	123	1,135	4,900	2025	17,832	1	31,623	8.16	35,181	9.08
UP Resi Phase 1	264,967	37,625	15,943	53,568	637,700	2025	662,418	40	1,968,912	13.68	2,101,086	14.60
UP Resi Phase 2	37,554	5,333	2,275	7,608	91,000	2025	93,886	6	280,134	13.73	298,867	14.65
UP Comm Phase 2	4,427	629	88	716	3,500	2025	11,068	1	20,427	8.49	22,636	9.41
Guildbourne House	274,985	8,250	528	8,777	21,113	2025	236,487	42	254,290	4.95	391,461	7.62
Davison Leisure Centre	1,064,026	31,921	1,398	33,319	55,922	2025	915,062	162	939,026	4.72	1,469,796	7.39
Pavilion Theatre	344,654	10,340	717	11,056	28,661	2025	296,402	52	322,546	5.01	494,470	7.68
Connaught Theatre	294,499	8,835	612	9,447	24,490	2025	253,269	45	275,609	5.01	422,515	7.68
Davison C of E Secondary S	253,405	7,602	1,202	8,804	48,061	2025	217,928	39	284,188	6.00	410,595	8.67
Davison C of E Secondary S	627,627	18,829	2,976	21,805	119,035	2025	539,759	95	703,870	6.00	1,016,950	8.67
Royal Mail	699,959	20,999	1,344	22,342	53,743	2025	601,965	106	647,281	4.95	996,442	7.62
Crown Buildings	472,709	14,181	907	15,089	36,295	2025	406,530	72	437,133	4.95	672,935	7.62
Worthing Hospital	12,520,474	375,614	19,600	395,214	783,988	2025	10,767,608	1,904	11,269,107	4.82	17,514,714	7.49
Splashpoint Leisure Centre	2,812,192	84,366	3,695	88,061	147,801	2025	2,418,485	428	2,481,820	4.72	3,884,630	7.39
Worthing Hospital - HOMER	288,323	8,650	451	9,101	18,054	2025	247,958	44	259,506	4.82	403,331	7.49
Sussex Police West Downs	64,020	1,921	123	2,043	4,915	2025	55,057	10	59,202	4.95	91,137	7.62
West Sussex Health & Soci	63,881	1,916	100	2,016	4,000	2025	54,938	10	57,497	4.82	89,363	7.49
Lyndhurst Infant School	115,311	3,459	662	4,121	26,474	2025	99,167	18	137,344	6.37	194,865	9.04
Stagecoach	321,690	45,680	5,734	51,414	229,360	2025	804,226	49	1,440,775	8.25	1,601,244	9.16
Grafton	320,547	45,518	17,611	63,128	704,428	2025	801,366	49	2,265,072	13.01	2,424,971	13.93
Cornelia Grange	503,009	15,090	787	15,878	31,497	2025	432,588	77	452,736	4.82	703,653	7.49
Wicker House	155,365	4,661	298	4,959	11,929	2025	133,614	24	143,672	4.95	221,173	7.62
41-43 South Street	255,390	7,662	531	8,193	21,238	2025	219,635	39	239,008	5.01	366,404	7.68
56 Montague Street	839,703	25,191	1,746	26,937	69,828	2025	722,145	128	785,842	5.01	1,204,713	7.68
Debenhams Plc	1,038,320	31,150	2,159	33,308	86,345	2025	892,955	158	971,718	5.01	1,489,665	7.68
Marks & Spencer Plc	1,885,593	56,568	3,920	60,488	156,803	2025	1,621,610	287	1,764,645	5.01	2,705,238	7.68
Beales	700,384	21,012	1,456	22,468	58,243	2025	602,330	107	655,459	5.01	1,004,832	7.68
13-15 South Street	303,692	9,111	631	9,742	25,254	2025	261,175	46	284,212	5.01	435,703	7.68
BG Site	212,201	30,133	11,658	41,791	466,329	2025	530,502	32	1,499,471	13.01	1,605,324	13.93
Teville Gate	807,777	114,704	44,379	159,083	1,775,158	2025	2,019,443	123	5,707,982	13.01	6,110,927	13.93
Total	30,006,686	1,154,256	166,771	1,321,027	6,305,274		29,272,902	4,564	40,584,783	5.60	55,553,062	8.15

3.12. New build developments such as Grafton, Teville Gate etc. are assumed to be developed with heating systems consistent with WICC. As such ASHP technology has been assumed with SCOP efficiency of 2.50 assumed.

3.13. The total emissions across the key town centre buildings, including the Civic Quarter, are estimated to be 4.56 kTCO2e representing approximately 10x the carbon emissions of the civic quarter.

3.14. For each building both the financial cost of heating, appraised over a 40 year period, and the social cost (i.e. accounting for the social cost of continuing to emit CO2e gases and the impact on local air quality) of heating has been presented with costs discounted at 3.5%.

3.15. At a building level, the whole life tariff proposed for any given district heating option will be compared back to the current whole life cost of heat (social and financial) to evaluate Value for Money from an energy offtaker perspective. Such analysis will also consider the proposed tariff against what would be needed to be done in order to actually decarbonise each building – the BAU case (see below).

Business as Usual (BAU)

3.16. The BAU case explores the means of de-carbonising the core civic quarter buildings in the absence of a centralised low/zero carbon (LZC) heating solution. It also further considers the cost of decarbonising the Union Place development as well as the wider town centre buildings.

3.17. At its core the BAU case is intended to explore the estimated whole life energy cost of decarbonising the key Worthing buildings for their heating and hot water requirements in the absence of a low/zero carbon heat network.

3.18. Below is the same table as per that shown in the Do Nothing option but with AECOM's approximate estimate of the cost of installing individual Air Source Heat Pumps accompanied by heating system recalibration:

Building	Annual electricity consumption	Annual cost of electricity	Annual maintenance charge	Total annual revenue cost	Estimated cost of replacement	Estimated year of replacement	Annual heat load	Average carbon emissions (20Y)	Net Present Cost (3.5% 40Y)	Levelised financial cost of heat (3.5% 40Y)	Social Net Present Cost (3.5% 40Y)	Levelised social cost of heat (3.5% 40Y)
Text	kWh	£/year	£/year	£/year	£	Year	kWh/year	T/year	£NPC	p/kWh	£NPC	p/kWh
Town Hall & Assembly Hall	495,344	70,344	6,720	77,064	200,000	2022	990,689	75	2,024,396	9.41	2,271,490	10.55
Portland House	90,525	13,760	12,600	26,360	315,000	2022	181,050	14	1,020,924	25.96	1,066,081	27.10
Museum	100,850	15,228	3,360	18,588	84,000	2022	201,700	15	535,671	12.22	585,978	13.37
Library	76,701	10,738	8,400	19,138	210,000	2022	153,402	12	716,281	21.49	754,542	22.64
Law Courts	175,418	24,909	16,800	41,709	420,000	2022	350,835	27	1,510,797	19.82	1,598,301	20.97
WICC	123,567	17,546	5,600	23,146	140,000	2022	308,916	19	714,250	10.64	775,889	11.56
Total	1,062,405	152,526	53,480	206,006	1,369,000		2,186,592	162	6,522,319	13.82	7,052,280	14.94

3.19. As can be seen in the table below the financial net present cost of converting each building such that emissions are substantially reduced and aligned with the wider decarbonisation of the electricity grid, is estimated to cost an additional £2.86m (financial net present cost evaluated over 40 years @ 3.5% discount rate) vs the Do Nothing option across all the civic quarter buildings. Accompanying that would be an estimated reduction in average annual emissions of 275 TCO2e/year (reducing emissions to 37% of Do Nothing). As the wider electricity grid decarbonises the annual emissions would be forecast to substantially reduced

such that by 2030 the average annual emissions of the system are forecast to be 162 TCO2e/year (37% of Do Nothing) and by 2050 down to 23 TCO2e/year.

3.20. The variance to the Do Nothing option for the Civic Quarter only assessment can be summarised below. It should be noted that a positive value represents an increase in cost/emissions and a negative value represents a decrease in cost/emissions:

Building	Fuel cost vs. Do Nothing	Maintenance vs Do Nothing	Revenue impact vs. Do Nothing	Capex vs Do Nothing	Heat load vs Do Nothing	Emissions vs. Do Nothing	Financial NPC vs. Do Nothing	Financial LCOH vs. Do Nothing	Socal NPC vs. Do Nothing	Social LCOH vs. Do Nothing
Text	£/year	£/year	£/year	£	kWh/year	T/year	£NPC	p/kWh	£NPC	p/kWh
Town Hall & Assembly Hall	27,361	2,399	29,760	0	0	-152	496,803	2.31	9,943	0.05
Portland House	6,602	7,762	14,364	264,150	0	-25	657,101	16.71	577,485	14.68
Museum	5,964	978	6,942	63,840	0	-28	220,831	5.04	132,134	3.02
Library	3,170	6,510	9,680	171,900	0	-21	453,955	13.62	386,497	11.60
Law Courts	11,590	13,920	25,510	358,200	0	-48	1,034,415	13.57	880,136	11.55
WICC	0	0	0	0	0	0	0	0.00	0	0.00
Total	54,687	31,568	86,255	858,090	0	-275	2,863,106		1,986,195	

3.21. Below is the same table as per that shown in the Do Nothing option but with AECOM's estimate of the cost of installing individual Air Source Heat Pumps accompanied by necessary fabric changes for the Civic Quarter + Union Place assessment. – this is to allow comparative benefits when looking at Option 2: Sewer Source Heat Pump + Union Place:

Building	Annual electricity consumption	Annual cost of electricity	Annual maintenance charge	Total annual revenue cost	Estimated cost of replacement	Estimated year of replacement	Annual heat load	Average carbon emissions (20Y)	Net Present Cost (3.5% 40Y)	Levelised financial cost of heat (3.5% 40Y)	Social Net Present Cost (3.5% 40Y)	Levelised social cost of heat (3.5% 40Y)
Text	kWh	£/year	£/year	£/year	£	Year	kWh/year	T/year	£NPC	p/kWh	£NPC	p/kWh
Town Hall & Assembly Hall	495,344	70,344	6,720	77,064	200,000	2022	990,689	75	2,024,396	9.41	2,271,490	10.55
Portland House	90,525	13,760	12,600	26,360	315,000	2022	181,050	14	1,020,924	25.96	1,066,081	27.10
Museum	100,850	15,228	3,360	18,588	84,000	2022	201,700	15	535,671	12.22	585,978	13.37
Library	76,701	10,738	8,400	19,138	210,000	2022	153,402	12	716,281	21.49	754,542	22.64
Law Courts	175,418	24,909	16,800	41,709	420,000	2022	350,835	27	1,510,797	19.82	1,598,301	20.97
WICC	123,567	17,546	5,600	23,146	140,000	2022	308,916	19	714,250	10.64	775,889	11.56
Union Place Hotel	59,560	8,458	1,208	9,665	48,300	2022	148,900	9	285,462	8.82	315,173	9.74
UP Comm Phase 1	7,133	1,013	123	1,135	4,900	2025	17,832	1	31,623	8.16	35,181	9.08
UP Resi Phase 1	264,967	37,625	15,943	53,568	637,700	2025	662,418	40	1,968,912	13.68	2,101,086	14.60
UP Resi Phase 2	37,554	5,333	2,275	7,608	91,000	2025	93,886	6	280,134	13.73	298,867	14.65
UP Comm Phase 2	4,427	629	88	716	3,500	2025	11,068	1	20,427	8.49	22,636	9.41
Total	1,436,046	205,583	73,115	278,698	2,154,400		3,120,697	218	9,108,877	13.54	9,825,222	14.61

3.22. The addition of Union Place, like the WICC, is assessed to be the same in both the Do Nothing and BAU options as in either case it is assumed that buildings developed in Union Place will be done so using low/zero carbon heating technology. As such the relative impact of adopting the BAU case vs the Do Nothing case is assessed to be the same whether Union Place is included or excluded from the assessment. It should be noted that a positive value represents an increase in cost or emissions and a negative value represents a decrease in cost/emissions:

Building	Fuel cost vs. Do Nothing	Maintenance vs Do Nothing	Revenue impact vs. Do Nothing	Capex vs Do Nothing	Heat load vs Do Nothing	Emissions vs. Do Nothing	Financial NPC vs. Do Nothing	Financial LCOH vs. Do Nothing	Socal NPC vs. Do Nothing	Social LCOH vs. Do Nothing
Text	£/year	£/year	£/year	£	kWh/year	T/year	£NPC	p/kWh	£NPC	p/kWh
Town Hall & Assembly Hall	27,361	2,399	29,760	0	0	-152	496,803	2.31	9,943	0.05
Portland House	6,602	7,762	14,364	264,150	0	-25	657,101	16.71	577,485	14.68
Museum	5,964	978	6,942	63,840	0	-28	220,831	5.04	132,134	3.02
Library	3,170	6,510	9,680	171,900	0	-21	453,955	13.62	386,497	11.60
Law Courts	11,590	13,920	25,510	358,200	0	-48	1,034,415	13.57	880,136	11.55
WICC	0	0	0	0	0	0	0	0.00	0	0.00
Union Place Hotel	0	0	0	0	0	0	0	0.00	0	0.00
UP Comm Phase 1	0	0	0	0	0	0	0	0.00	0	0.00
UP Resi Phase 1	0	0	0	0	0	0	0	0.00	0	0.00
UP Resi Phase 2	0	0	0	0	0	0	0	0.00	0	0.00
UP Comm Phase 2	0	0	0	0	0	0	0	0.00	0	0.00
Total	54,687	31,568	86,255	858,090	0	-275	2,863,106		1,986,195	

3.23. Below is the estimated annual and whole life cost of decarbonising the key existing buildings in the planned Worthing Town Centre expansion. It is important to note that AECOM have not had the opportunity to assess the building by building intervention requirements to allow for a LZC heat source to be installed. For the purposes of this analysis it is assumed that an ASHP is installed on the same £700/kW installed basis that AECOM assessed for the Civic quarter in 2025. Further, it has been assumed, as with the Civic quarter buildings, that the Seasonal Coefficient of Performance of the existing Worthing buildings would be 2.0 (approximately 0.8 worse than a typical ASHP) on the basis of poor thermal performance of the buildings. New buildings, such as Stagecoach and Grafton developments assume, like for the WICC, an SCOP of 2.5.

Building	Annual electricity consumption	Annual cost of electricity	Annual maintenance charge	Total annual revenue cost	Estimated cost of replacement	Estimated year of replacement	Annual heat load	Average carbon emissions (20Y)	Net Present Cost (3.5% 40Y)	Levelised financial cost of heat (3.5% 40Y)	Social Net Present Cost (3.5% 40Y)	Levelised social cost of heat (3.5% 40Y)
Text	kWh/year	£/year	£/year	£/year	£	Year	kWh/year	T/year	£NPC	p/kWh	£NPC	p/kWh
Town Hall & Assembly Hall	495,344	70,344	6,720	77,064	200,000	2022	990,689	75	2,024,396	9.41	2,271,490	10.55
Portland House	90,525	13,760	12,600	26,360	315,000	2022	181,050	14	1,020,924	25.96	1,066,081	27.10
Museum	100,850	15,228	3,360	18,588	84,000	2022	201,700	15	535,671	12.22	585,978	13.37
Library	76,701	10,738	8,400	19,138	210,000	2022	153,402	12	716,281	21.49	754,542	22.64
Law Courts	175,418	24,909	16,800	41,709	420,000	2022	350,835	27	1,510,797	19.82	1,598,301	20.97
WICC	123,567	17,546	5,600	23,146	140,000	2022	308,916	19	714,250	10.64	775,889	11.56
Union Place Hotel	59,560	8,458	1,208	9,665	48,300	2022	148,900	9	285,462	8.82	315,173	9.74
UP Comm Phase 1	7,133	1,013	123	1,135	4,900	2025	17,832	1	31,623	8.16	35,181	9.08
UP Resi Phase 1	264,967	37,625	15,943	53,568	637,700	2025	662,418	40	1,968,912	13.68	2,101,086	14.60
UP Resi Phase 2	37,554	5,333	2,275	7,608	91,000	2025	93,886	6	280,134	13.73	298,867	14.65
UP Comm Phase 2	4,427	629	88	716	3,500	2025	11,068	1	20,427	8.49	22,636	9.41
Guildbourne House	118,244	16,791	2,463	19,254	98,530	2025	236,487	18	554,376	10.79	613,360	11.94
Davison Leisure Centre	457,531	64,969	6,524	71,494	260,970	2025	915,062	70	1,935,463	9.74	2,163,694	10.88
Pavilion Theatre	148,201	21,045	3,344	24,388	133,750	2025	296,402	23	712,708	11.07	786,635	12.22
Connaught Theatre	126,635	17,982	2,857	20,839	114,287	2025	253,269	19	608,994	11.07	672,163	12.22
Davison C of E Secondary S	108,964	15,473	5,607	21,080	224,283	2025	217,928	17	743,523	15.70	797,877	16.85
Davison C of E Secondary S	269,880	38,323	13,887	52,210	555,497	2025	539,759	41	1,841,537	15.70	1,976,162	16.85
Royal Mail	300,982	42,740	6,270	49,010	250,802	2025	601,965	46	1,411,133	10.79	1,561,273	11.94
Crown Buildings	203,265	28,864	4,234	33,098	169,376	2025	406,530	31	952,992	10.79	1,054,387	11.94
Worthing Hospital	5,383,804	764,500	91,465	855,965	3,658,612	2025	10,767,608	819	23,799,149	10.17	26,484,760	11.32
Splashpoint Leisure Centre	1,209,242	171,712	17,243	188,956	689,736	2025	2,418,485	184	5,115,375	9.74	5,718,583	10.88
Worthing Hospital - HOMEF	123,979	17,605	2,106	19,711	84,251	2025	247,958	19	548,049	10.17	609,894	11.32
Sussex Police West Downs	27,529	3,909	573	4,483	22,939	2025	55,057	4	129,065	10.79	142,797	11.94
West Sussex Health & Soci	27,469	3,901	467	4,367	18,667	2025	54,938	4	121,427	10.17	135,129	11.32
Lyndhurst Infant School	49,584	7,041	3,089	10,130	123,548	2025	99,167	8	375,790	17.44	400,524	18.59
Stagecoach	321,690	45,680	5,734	51,414	229,360	2025	804,226	49	1,440,775	8.25	1,601,244	9.16
Grafton	320,547	45,518	17,611	63,128	704,428	2025	801,366	49	2,265,072	13.01	2,424,971	13.93
Cornelia Grange	216,294	30,714	3,675	34,388	146,985	2025	432,588	33	956,129	10.17	1,064,024	11.32
Wicker House	66,807	9,487	1,392	10,878	55,669	2025	133,614	10	313,220	10.79	346,545	11.94
41-43 South Street	109,818	15,594	2,478	18,072	99,109	2025	219,635	17	528,119	11.07	582,899	12.22
56 Montague Street	361,073	51,272	8,147	59,419	325,865	2025	722,145	55	1,736,420	11.07	1,916,534	12.22
Debenhams Plc	446,478	63,400	10,074	73,473	402,943	2025	892,955	68	2,147,137	11.07	2,369,854	12.22
Marks & Spencer Plc	810,805	115,134	18,294	133,428	731,746	2025	1,621,610	123	3,899,210	11.07	4,303,666	12.22
Beales	301,165	42,765	6,795	49,560	271,799	2025	602,330	46	1,448,321	11.07	1,598,551	12.22
13-15 South Street	130,588	18,543	2,946	21,490	117,854	2025	261,175	20	628,003	11.07	693,144	12.22
BG Site	212,201	30,133	11,658	41,791	466,329	2025	530,502	32	1,499,471	13.01	1,605,324	13.93
Teville Gate	807,777	114,704	44,379	159,083	1,775,158	2025	2,019,443	123	5,707,982	13.01	6,110,927	13.93
Total	14,096,595	2,003,381	366,427	2,369,808	13,886,891		29,272,902	2,144	70,528,317	11.05	77,560,143	12.16

3.24. The 2.0 SCOP assumption has a significant impact on both the carbon and financial cost of the option as the SCOP assumption directly impacts the long term electricity consumption requirement. By way of example were the SCOP assumption to increase to 2.31 then Option 3: SSHP + town option would suggest break even value versus the £4.8m NPV currently shown.

3.25. With regards this point, it is important to note that existing buildings, like the civic quarter buildings, will require relatively high flow temperatures (estimated to be 65DegC following planned building improvements). Building level air source heat pumps (domestic and commercial) typically are unable to efficiently supply heat at these kinds of temperatures due to the refrigerants that can safely be used, with most heat pumps providing product specifications at flow temperatures up to 55 DegC. Evidently were a fabric first approach taken then a much higher SCOP should be possible to achieve, one close to quoted air source heat pump specification sheets (c.2.5-3.0), but the cost to do so would be substantial and

likely far in excess of the £700/kW assumed by AECOM (assumed cost of purchase and installation of an air source heat pump).

3.26. Were the SCOP assumption to reduce to 1.32 for the existing civic quarter buildings (down from 2.0) then that would indicate that Option 2: Civic Quarter SSHP would be break even as opposed to the current evaluated net present cost. However, at that performance level it would be comparable to electric panel heats (COP of 1.0) and so the conclusions of Option 2 are unlikely to change as a result of this assumption.

3.27. As has been mentioned above, new build developments are assumed to be developed in line with the BAU assumptions of LZC heating technology and as such there is no difference between the Do Nothing option and the BAU option for these developments. It should be noted that a positive value represents an increase in cost or emissions and a negative value represents a decrease in cost/emissions:

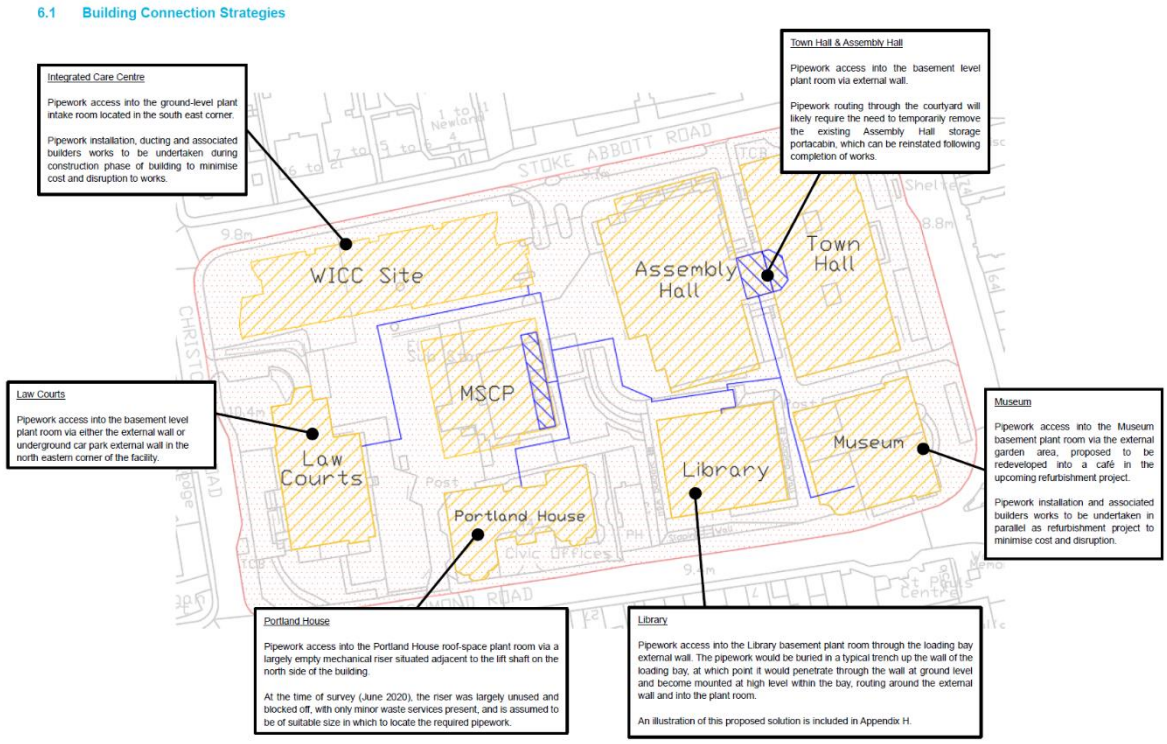
Building Text	Fuel cost vs. Do Nothing £/year	Maintenance vs Do Nothing £/year	Revenue impact vs. Do Nothing £/year	Capex vs Do Nothing £	Heat load vs Do Nothing kWh/year	Emissions vs. Do Nothing T/year	Financial NPC vs. Do Nothing £NPC	Financial LCOH vs. Do Nothing p/kWh	Socal NPC vs. Do Nothing £NPC	Social LCOH vs. Do Nothing p/kWh
Town Hall & Assembly Hall	27,361	2,399	29,760	0	0	-113	496,803	2.31	126,163	0.59
Portland House	6,602	7,762	14,364	264,150	0	-18	657,101	16.71	597,242	15.18
Museum	5,964	978	6,942	63,840	0	-20	220,831	5.04	154,145	3.52
Library	3,170	6,510	9,680	171,900	0	-15	453,955	13.62	403,237	12.10
Law Courts	11,590	13,920	25,510	358,200	0	-35	1,034,415	13.57	918,422	12.05
WICC	0	0	0	0	0	0	0	0.00	0	0.00
Union Place Hotel	0	0	0	0	0	0	0	0.00	0	0.00
UP Comm Phase 1	0	0	0	0	0	0	0	0.00	0	0.00
UP Resi Phase 1	0	0	0	0	0	0	0	0.00	0	0.00
UP Resi Phase 2	0	0	0	0	0	0	0	0.00	0	0.00
UP Comm Phase 2	0	0	0	0	0	0	0	0.00	0	0.00
Guildbourne House	8,541	1,935	10,476	77,416	0	-24	300,086	5.84	221,899	4.32
Davison Leisure Centre	33,049	5,126	38,175	205,048	0	-92	996,437	5.01	693,898	3.49
Pavilion Theatre	10,705	2,627	13,332	105,090	0	-30	390,161	6.06	292,165	4.54
Connaught Theatre	9,147	2,245	11,392	89,797	0	-26	333,385	6.06	249,649	4.54
Davison C of E Secondary S	7,871	4,406	12,276	176,222	0	-22	459,335	9.70	387,283	8.18
Davison C of E Secondary S	19,494	10,912	30,406	436,462	0	-54	1,137,668	9.70	959,212	8.18
Royal Mail	21,741	4,926	26,667	197,058	0	-61	763,852	5.84	564,830	4.32
Crown Buildings	14,682	3,327	18,009	133,081	0	-41	515,859	5.84	381,451	4.32
Worthing Hospital	388,886	71,866	460,752	2,874,624	0	-1,085	12,530,042	5.36	8,970,046	3.83
Splashpoint Leisure Centre	87,347	13,548	100,895	541,935	0	-244	2,633,555	5.01	1,833,953	3.49
Worthing Hospital - HOMEI	8,955	1,655	10,610	66,197	0	-25	288,543	5.36	206,563	3.83
Sussex Police West Downs	1,988	451	2,439	18,023	0	-6	69,864	5.84	51,661	4.32
West Sussex Health & Socia	1,984	367	2,351	14,667	0	-6	63,930	5.36	45,766	3.83
Lyndhurst Infant School	3,582	2,427	6,008	97,073	0	-10	238,446	11.07	205,659	9.55
Stagecoach	0	0	0	0	0	0	0	0.00	0	0.00
Grafton	0	0	0	0	0	0	0	0.00	0	0.00
Cornelia Grange	15,623	2,887	18,511	115,488	0	-44	503,394	5.36	360,371	3.83
Wicker House	4,826	1,093	5,919	43,740	0	-13	169,547	5.84	125,371	4.32
41-43 South Street	7,932	1,947	9,879	77,872	0	-22	289,111	6.06	216,495	4.54
56 Montague Street	26,081	6,401	32,482	256,037	0	-73	950,577	6.06	711,821	4.54
Debenhams Plc	32,250	7,915	40,165	316,598	0	-90	1,175,419	6.06	880,189	4.54
Marks & Spencer Plc	58,567	14,374	72,940	574,943	0	-163	2,134,566	6.06	1,598,428	4.54
Beales	21,754	5,339	27,093	213,557	0	-61	792,862	6.06	593,719	4.54
13-15 South Street	9,433	2,315	11,748	92,600	0	-26	343,791	6.06	257,441	4.54
BG Site	0	0	0	0	0	0	0	0.00	0	0.00
Teville Gate	0	0	0	0	0	0	0	0.00	0	0.00
Total	849,125	199,656	1,048,781	7,581,617	0	-2,420	29,943,535		22,007,081	

Option 1: Ground Source Heat Pump with Open Loop – Civic Quarter Only

3.29. Open loop ground source heat pumps work on the basis of abstracting water for an aquifer extracting latent heat from the water via a water-to-water ground source heat pump, and then discharging the ground water back to the aquifer at a point far enough away from the abstraction point that the risk of recirculating the ground water from which energy has already been taken is reduced.

3.30. In this option water would be abstracted from the chalk aquifer and passed through a heat exchanger. The ground source heat pump, located in the MSCP, would then elevate the heat provided from the ground water to the required temperature with a target of 65 DegC.

3.31. The heat would then be distributed to the Civic Quarter buildings through a series of insulated buried pipework with plate heat exchangers installed in each building to interface with the existing wet heating pipework:



3.32. The cost of enabling the buildings to accept heat at 65 DegC, without compromising on comfort, has been estimated by AECOM to cost approximately £500,000 across the Civic Quarter buildings. This cost has been assumed to be borne by the investor in the project, not the individual building owners with the exception of WICC, where a £73,334 connection charge is assumed, as substantial avoided costs of low/zero carbon heating technology would be made through connection to the network – see Commercial Case for value for money assessment on tariff including connection charges.

3.33. AECOM have assessed, based on a review of nearby existing boreholes, that the chalk aquifer could be up to 200m thick beneath the site starting from a depth of approximately 6-10m below ground level. Two separate pumping tests carried out some decades ago at two nearby

boreholes (2km west and 2.5km north) saw pumping rates of between 0.63l/s and 9.5l/s. This suggests a potentially substantial variation in aquifer response to pumping.

3.34. Based on this and wider analysis AECOM have assessed that abstraction rates in excess of 5.0l/s could be achieved from suitably drilled boreholes into the chalk aquifer on the site. The proximity of the site to the coastal shoreline could present a small risk of abstracting brackish or saline water with implications for the longevity of the GSHP.

3.35. At this level of abstraction a maximum 350kW GSHP has been assessed to be possible to be installed with no further capacity expansion potential using the bore holes proposed on the Civic Quarter site.

3.36.

3.37. Summary of key technical risks associated with option:

#	Summary	Detail	Mitigation
1	Flow rate	While a 5l/s flow rate has been estimated given the variation across two boreholes in the same chalk aquifer there is a risk that a lower flow rate will be achieved limiting the heat capacity that can be accessed.	Appoint a water well drilling contractor to drill two suitably designed pilot boreholes on the site and test pump the boreholes
2	Discharge limitations / local flooding risk	The shallow rest water level (less than 10m) combined with the proximity to the coast means there is the potential for higher groundwater levels during seasonally high periods which could lead to flooding of basements.	1. As with #1 2. Instead of recharging back to the aquifer recharge to the public sewer – likely to be licencing challenges with this approach; 3. Discharge to the coast – as with 2 RE: licencing issues but additional infrastructure cost to take water to the coast
3	Salt content of water	No site specific groundwater quality is available. However, historical records in the area suggest potentially brackish water may be present.	A marine source heat pump capable of managing saline content of water may need to be selected. A trial borehole (as per #1 above) may therefore be necessary if this option

			is taken forward as it would aim to address risks 1-3
4	Environment Agency	Where more than 20m3/day of abstraction is expected a licence is required from the EA. There is a risk of rejection which is heightened should options that seek to discharge aquifer water (a public resource) to the public sewer or sea is pursued.	Engagement with the EA has already begun.

3.38. As can be seen from the above key technical risks identified by AECOM the most likely mitigation strategy, for this option, would be to incur the expense of drilling trial boreholes into the chalk aquifer to test both the abstraction and discharge rates. Such a cost would most likely need to be borne by the Authority to enable this option to be taken forward.

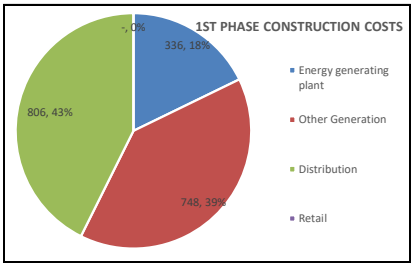
3.39. Were this option taken forward it would be done so on the basis that the investor in the heat network achieves a return. For the purposes of the Economic Case all returns analysis is done on a social time preference basis and therefore a 3.5% discount rate has been used.

3.40. AECOM have estimated an upfront capital cost of £1.889m to deliver this option:

FIRST PHASE OF CONSTRUCITON

Start year	*Year*	2021
End year	*Year*	2022
Duration	*Years*	1
Money terms:		Real

		Real	*Discounted*
Generation	*£000*	1,084	1,047
Distribution	*£000*	806	778
Retail	*£000*	-	-
Total first phase	*£000*	**1,889**	**1,826**



3.41. The levelized cost of heat to deliver Option 1: Ground Source Heat Pump with open loop has been evaluated as follows:

Levelised Cost of LTHW

Select energy type: LTHW
Express levelised cost in whole life terms or T0 terms?*: Whole life
Money terms of levelised cost+: Real

Years over which LCOE calcualted:		15	25	35	40	60
Non-LTHW income	*p/kWh*	(0.25)	(0.17)	(0.14)	(0.13)	(0.12)
Subsidies received	*p/kWh*	-	-	-	-	-
Capex	*p/kWh*	7.91	5.90	4.84	4.52	4.30
Fuel costs	*p/kWh*	5.07	5.07	5.07	5.07	5.07
O&M	*p/kWh*	0.93	0.93	0.93	0.93	0.93
Levies	*p/kWh*	-	-	-	-	-
Levelised cost of energy	*p/kWh*	**13.67**	**11.74**	**10.71**	**10.39**	**10.19**

3.42.

3.43. The 40 year levelized cost is 10.39p/kWh, which is marginally lower than the WICC equivalent cost of heat (appraised on like-for-like terms at 10.64p/kWh), substantially lower (on average) than the BAU option and broadly equivalent to the social cost of continuing to consume gas (see Do Nothing case).

3.44. This tells us that were the owner/operator of the heat network to charge 10.39 pence for each kWh of heat sold then he/she would achieve a 3.5% return on investment over a 40 year period achieving carbon savings relative to the Do Nothing case comparable to those achieved in the BAU case but at a far lower cost to the public sector heat offtakers – see table below. It should be noted that a positive value represents an increase in cost a negative value represents a decrease in cost:

OPTION 1 vs. BAU & Do Nothing

Building	Heat consumed	Carbon vs Do Nothing	Carbon vs BAU	Heat Network LCOH	BAU LCOH	Revenue cost of heat	Financial NPC of heat	NPC vs. Financial Do Nothing	NPC vs. Social Do Nothing	NPC vs. BAU
Text	kWh/year	TCO2e/Y	TCO2e/Y	p/kWh	p/kWh	£/year	£NPC	£NPC	£NPC	£NPC
Town Hall & Assembly Hall	990,689	-161	-8	10.39	9.41	102,933	2,275,067	747,473	13,520	250,670
Portland House	181,050	-27	-2	10.39	25.96	18,811	415,772	51,949	-72,824	-605,152
Museum	201,700	-30	-2	10.39	12.22	20,957	463,194	148,354	9,350	-72,477
Library	153,402	-22	-1	10.39	21.49	15,938	352,281	89,955	-15,764	-364,000
Law Courts	350,835	-51	-3	10.39	19.82	36,452	805,675	329,294	87,511	-705,122
WICC	308,916	2	2	10.39	10.64	32,096	709,411	-4,839	-66,478	-4,839
Total	2,186,592	-289	-14		13.82	227,187	5,021,399	1,362,187	-44,686	-1,500,920

3.45. As can be seen in the above table, the overall saving to the public sector buildings against the BAU option is £1.5m and £0.04m against the Do Nothing option where the social cost of continuing to combust gas has been accounted for in line with published methodology by the Department for Business, Energy and Industrial Strategy (https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal).

3.46. For the Town Hall & Assembly Hall, the analysis suggests that were this option taken forward it would be more cost effective to pursue the BAU option rather than connect to the heat network. However, there is an overall saving to the public sector buildings both against the BAU option and the Social Do Nothing option – as such the Commercial case will explore a tariff that can demonstrate value for money to all public sector buildings should this option be taken forward.

3.47. It is important to note that on purely financial terms the analysis shows that over a 40 year period this option would present an additional £1.36m net present cost when compared to the financial Do Nothing option. However, as has been stressed, were the public buildings to adopt the Do Nothing approach it is unlikely that the Authoity's net zero ambition of 2030 and the national objective of net zero by 2050 could be achieved in this geographical area.

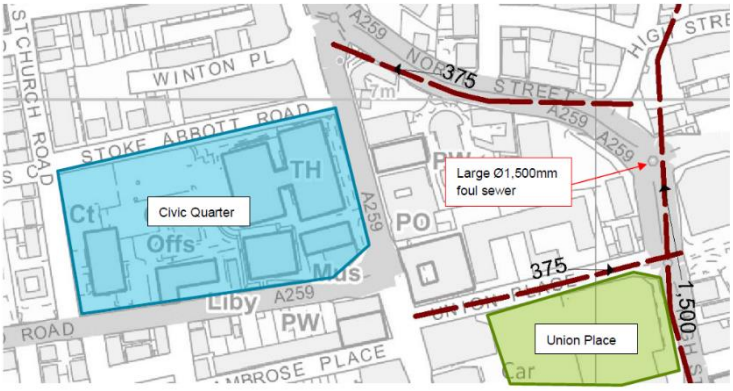
3.48. A key limitation to this option is its inability to expand using the chalk aquifer resource accessed via the boreholes that would be drilled on the Civic Quarter site. AECOM have assessed that the maximum thermal capacity that the proposed boreholes on the Civic Quarter site could supply would be sufficient to supply heat to the Civic Quarter buildings only. However, that is not to say that future expansion is not possible it is just that further investment in accessing a heat source would be required. This is explored in Option 3A.

3.49. **Conclusion: while this option presents a possible value for money option to decarbonise the civic quarter it will be necessary to evaluate this against other options that also show a net present value relative to counterfactuals presented.**

Option 2: Sewer Source Heat Pump – Civic Quarter + Union Place Only

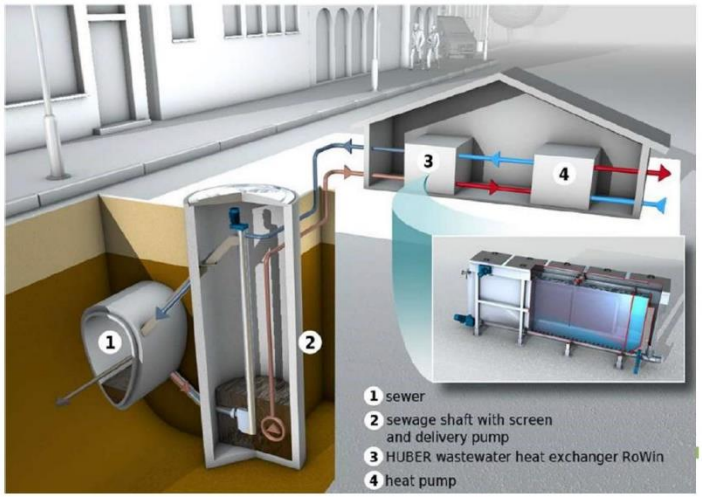
3.50. Public sewers present a potential long-term heat source benefiting from both the ambient temperature of water run off but also discharges to the public sewer from domestic and commercial buildings including hot water from washing machines and dishwashers.

3.51. A significant public sewer runs north south on the High Street directly adjacent to the planned new development Union Place and approximately 210m east of the boundary of the Civic Quarter site:



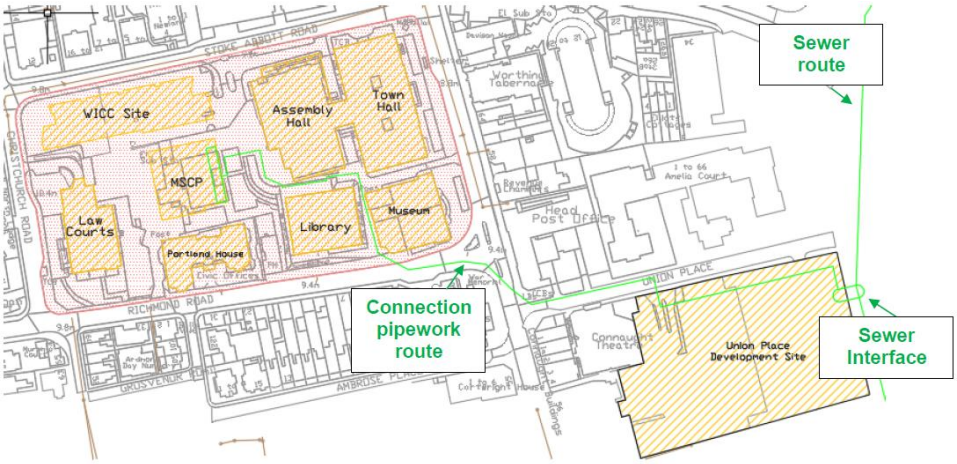
3.52. It has an estimated flow rate of 1,250-2,070 l/s per correspondence with Southern Water. This particular sewer does not collect surface water and as such, based on the flow type (foul water only) and the flow rate, AECOM have estimated a maximum thermal capacity of 3.3MWth could be extracted using heat pump technology.

3.53. Extracting heat from foul water presents challenges both from the quality of the water and gaining access to the sewer itself. Below is a diagram that shows how Huber's technology works:



3.54. A shaft is installed adjacent to existing sewer main with foul water pumped from the sewer into the shaft with levels managed much like a cistern in a toilet. The foul water is then pumped to Huber's waste water heat exchanger (3 in the diagram) which is a proprietary self-cleaning heat exchanger. Water on the other side of the heat exchanger is elevated in temperature through contact with the foul water via the heat exchanger. This is then pumped to a water-to-water heat pump (4 in the diagram) which is proposed to use ammonia as its refrigerant.

3.55. The Energy Centre for this option would be proposed to remain in the MSCP; however, the sewer interface (2 & 3 in the diagram) would be located at Union Place. The elevated temperature water would then pumped to the MSCP where the heat pump would be located:



3.56. An alternative option could be to locate all of the heating plant in a dedicated energy centre at Union Place; however, clearly this would present programming risk in that the Union Place development works would need to interface with the requirements of the project. Further, minimising the development space required for the Energy Centre in the Union Place development is more likely to be acceptable to future developers.

3.57. Back up gas boilers would be installed for system resilience. With time these could be replaced with electrode boilers. For modelling purposes gas boilers have been assumed.

3.58. AECOM estimate that a Seasonal Coefficient of Performance of 3.81 could be achieved. This would mean that on average across any given year for every 1kWh of electricity supplied to the heat pump's compressor 3.81kWh of thermal output at 65 DegC could be achieved. This compares to a typical air source heat pump with an SCOP of 2.8-3.0 but potentially lower when looking to supply at this temperature level.

3.59. If this option is taken forward, the thermal capacity potential of the sewer will need to be tested. Landmark Wastewater Solutions, a sewer source heat pump specialist consultancy and installer, have been provisionally engaged to explore the thermal potential of this option through physical testing. Approval will be sought to fund this work if this option is taken forward. This will include:

- Inspection of sewer chambers;
- Accessing sewer to review condition;

- Evaluate proposed location of energy centre;
- Review proposed location of wet well (2 on diagram above);
- Review of proposed pipe-run from the wet well to the proposed energy centre;
- Consider pumping options
- Produce a report that evaluates the findings from the work above;
- Install water monitoring equipment in an agreed inspection chamber to monitor the water flow rate, height and temperature of water in the sewer.

3.60. Redacted.

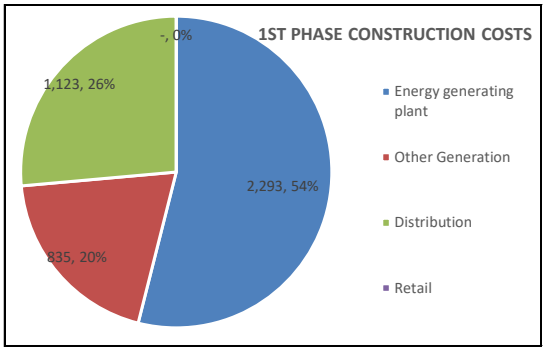
3.61. Were this option taken forward it would be done so on the basis that the investor in the heat network achieves a return. For the purposes of the Economic Case all returns analysis is done on a social time preference basis and therefore a 3.5% discount rate has been used.

3.62. AECOM have estimated an upfront capital cost of £4.252m to deliver this option for a 1MWth Sewer Source Heat Pump combined with 2MWth of gas boilers for system resilience:

FIRST PHASE OF CONSTRUCITON

Start year	*Year*	2021
End year	*Year*	2022
Duration	*Years*	1
Money terms:		Real

		Real	*Discounted*
Generation	*£000*	3,128	2,951
Distribution	*£000*	1,123	1,060
Retail	*£000*	-	-
Total first phase	*£000*	**4,252**	**4,011**



3.63. The levelized cost of heat to deliver Option 2: Sewer Source Heat Pump for WCQ + Union Place has been evaluated as follows:

Levelised Cost of LTHW

Select energy type:	LTHW
Express levelised cost in whole life terms or T0 terms?*	Whole life
Money terms of levelised cost+:	Real

Years over which LCOE calcualted:		15	25	35	40	60
Non-LTHW income	*p/kWh*	(1.91)	(1.30)	(1.06)	(0.99)	(0.90)
Subsidies received	*p/kWh*	-	-	-	-	-
Capex	*p/kWh*	12.68	9.30	7.60	7.10	6.72
Fuel costs	*p/kWh*	5.42	5.41	5.41	5.41	5.41
O&M	*p/kWh*	2.31	2.30	2.30	2.30	2.30
Levies	*p/kWh*	-	-	-	-	-
Levelised cost of energy	*p/kWh*	**18.50**	**15.72**	**14.26**	**13.82**	**13.53**

3.64. The 40 year levelized cost of heat is 13.82p/kWh, which is somewhat higher than the majority of the BAU cost of heat to decarbonise individual buildings. This assumes that a connection fee (shown as non-LTHW income) is achieved.

3.65. This tells us that were the owner/operator of the heat network to charge 13.82 pence for each kWh of heat sold then he/she would achieve a 3.5% return on investment over a 40 year period; however, this would come at a cost to the public sector offtakers relative to any of the counterfactual scenarios considered (Do Nothing Financial, Do Nothing Social and BAU). It should be noted that a positive value represents an increase in cost a negative value represents a decrease in cost:

OPTION 2 vs BAU & Do Nothing

Building Text	Heat consumed kWh/year	Carbon vs Do Nothing TCO2e/Y	Carbon vs BAU TCO2e/Y	Heat Network LCOH p/kWh	BAU LCOH p/kWh	Revenue cost of heat £/year	Financial NPC of heat £NPC	NPC vs. Financial Do Nothing £NPC	NPC vs. Social Do Nothing £NPC	NPC vs. BAU £NPC
Town Hall & Assembly Hall	990,689	-186	-75	13.82	9.41	136,913	3,026,123	1,498,530	764,576	1,001,727
Portland House	181,050	-31	-14	13.82	25.96	25,021	553,029	189,206	64,433	-467,895
Museum	201,700	-35	-15	13.82	12.22	27,875	616,106	301,266	162,262	80,435
Library	153,402	-26	-12	13.82	21.49	21,200	468,577	206,252	100,533	-247,703
Law Courts	350,835	-60	-27	13.82	19.82	48,485	1,071,649	595,267	353,484	-439,148
WICC	308,916	-6	-19	13.82	10.64	42,692	943,605	229,355	167,717	229,355
Union Place Hotel	148,900	-3	-9	13.82	8.82	20,578	454,826	169,364	139,653	169,364
UP Comm Phase 1	17,832	0	-1	13.82	8.16	2,464	54,469	22,846	19,288	22,846
UP Resi Phase 1	662,418	-12	-40	13.82	13.68	91,546	2,023,399	54,487	-77,687	54,487
UP Resi Phase 2	93,886	-2	-6	13.82	13.73	12,975	286,780	6,646	-12,087	6,646
UP Comm Phase 2	11,068	0	-1	13.82	8.49	1,530	33,809	13,381	11,173	13,381
Total	3,120,697	-360	-218		13.54	431,280	9,532,373	3,286,602	1,693,346	423,496

3.66. As can be seen in the above table, with only the exceptions for Portland House, the Library and the Law Courts, were this option taken forward as presented then it would be forecast to represent a net present cost of £0.28 more than the BAU alternative route to decarbonisation.

3.67. However, a key consideration is that this option presents substantial expansion potential for the further decarbonisation of Worthing, which the open loop ground source heat pump options do to a much lesser extent. This is because the sewer has been evaluated to provide a maximum thermal capacity of 3.3MW versus 0.35MW of the chalk aquifer accessed on the WICC development site. Such a resource could potentially supply close to 70% of the core Worthing town centre heat loads without no substantial additional plant being added to the system.

3.68. **Conclusion: the SSHP option is assessed unlikely to be appropriate where only the Civic Quarter and Union Place utilises that resource. However, given the very substantial expansion potential that this resource presents this needs to be considered in Option 3: SSHP + town expansion.**

Option 3A – evaluating the relative technologies for a wider district heating network

3.69. A key part of AECOM's work was to assess the heat network expansion potential with the Civic Quarter acting as a core initial stage network.

3.70. With Option 2, Civic Quarter only, presenting a heat capacity potential of over 3MWth – far greater than the needs of the Civic Quarter on its own (350kWth having been assessed to be sufficient for baseload supply) – AECOM took the approach of evaluating comparator low carbon technologies, or combinations of low carbon technologies, to achieve an equivalent 3MWth of low/zero carbon heating technology in order to settle on the preferred technology for network expansion into Worthing Town Centre.

3.71. Technologies considered:

Option #	Option Title	Option Description
3A1	SSHP @ 3MW	As with option 2 but now with connections made to the wider town centre
3A2	OL + MSHP @ 3MW	The Civic Quarter Open Loop Ground Source Heat Pump (option 1) is developed and then subsequently, with the network's expansion, a marine source heat pump
3A3	MSHP @ 3MW	A single phase town centre network would be developed with Marine Source Heat Pump technology being used as the primary heating technology throughout. Indicative energy centre locations have been considered in the developments Grafton/Stagecoach or possibly the Splashpoint leisure centre.
3A4	ASHP @ 3MW	An air source heat pump unit would initially be installed in the multi-storey car park (MSCP) as part of the Civic Quarter phase much in the same way that the SSHP has been modelled to be installed in the same location. However, this would be a 300kW unit with further units deployed at key points on the network. AECOM have considered the possibility for subsequent units to be installed at developments such as the Grafton, Union Place and Stagecoach sites.

3.72. Summary of findings evaluating the relative capex, opex and fuel costs:

	p/kWh LCOH (40YR 3.5%)	CoP implicit within AECOM modelling
SSHP 3MW	8.74	2.97
OL + MSHP @ 3MW	9.33	2.69
MSHP @ 3MW	9.34	2.67
ASHP @ 3MW	9.30	2.22

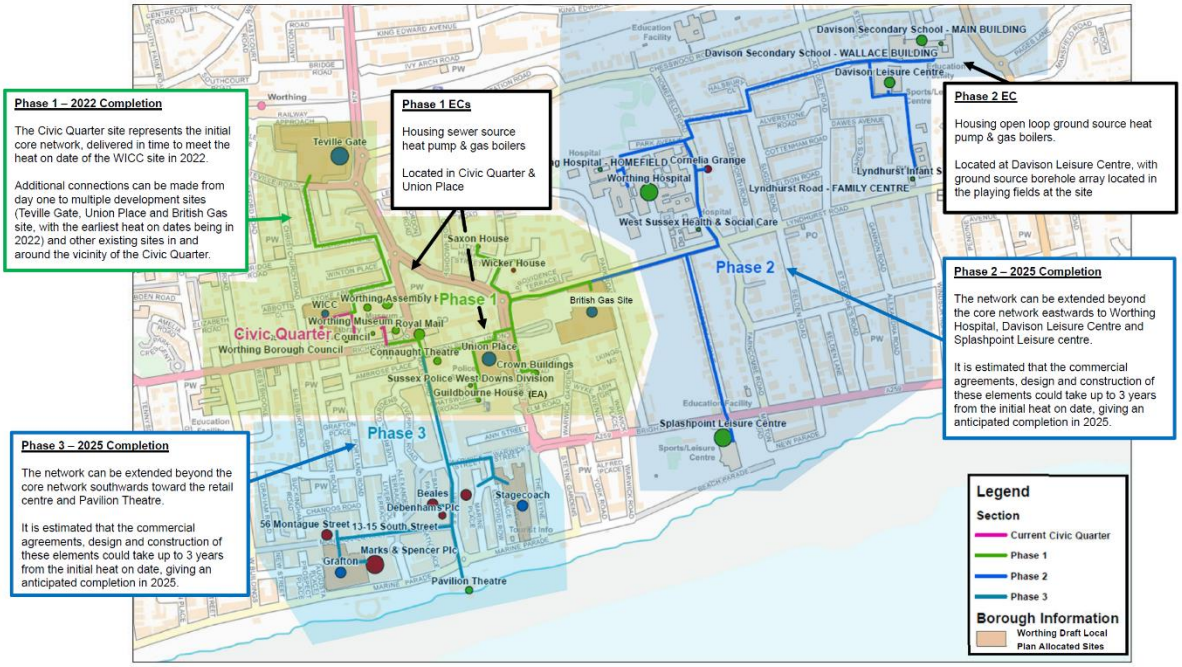
3.73. To deliver the same 3MW of capacity (with the balance of supply required for the whole WTC assumed to come from gas boilers for each technology type analysed), AECOM assessed the Sewer Source Heat Pump option to be both the most cost effective but also offering the highest Coefficient of Performance (CoP) suggesting it would have the lowest emissions over and above other low carbon heating options.

3.74. For these reasons, AECOM selected the SSHP option as the preferred primary technology. They then evaluated the means of decarbonising the town centre heat that could not be met by the 3MW of sewer source heat. This is explored in Option 3B and option 3A rationalises why alternative heat sources such as marine source and air source were not taken forward as the primary heating technology for that option.

Option 3B: Sewer Source Heat Pump + town expansion

3.75. The technology selection would retain the Sewer Source Heat Pump (SSHP), described in Option 2: Sewer Source Heat Pump, but additionally would install a closed loop Ground Source Heat Pump (GSHP) either within Homefield Park or within the playing field ground of the Davidson Leisure Centre to be used as a secondary heat source of low carbon heat. AECOM estimate a 3MW array should be possible to install for this system with the goal of achieving a 97% low carbon heat fraction (3% from gas peaking plant).

3.76. Back up gas boilers would be installed for system resilience. With time these could be replaced with electrode boilers. For modelling purposes gas boilers have been assumed.



3.77. With an expanded customer base the core capital cost of accessing the estimated 3.3MWth of sewer heat could be socialised more widely bringing down the levelized cost of heat delivered to 10.19p/kWh (vs. 13.82p/kWh in Option 2):

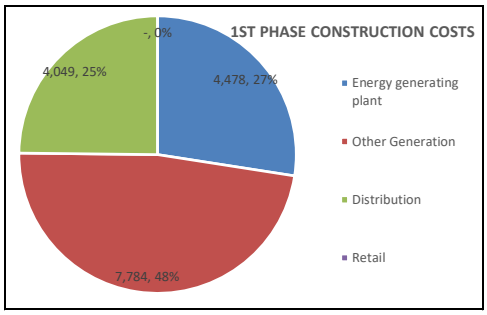
Levelised Cost of LTHW		Select energy type:	LTHW
		Express levelised cost in whole life terms or T0 terms?*	Whole life
		Money terms of levelised cost*:	Real

Years over which LCOE calcualted:		15	25	35	40	60
Non-LTHW income	p/kWh	(1.00)	(0.62)	(0.49)	(0.45)	(0.41)
Subsidies received	p/kWh	-	-	-	-	-
Capex	p/kWh	6.22	4.47	3.55	3.28	3.16
Fuel costs	p/kWh	6.50	6.48	6.47	6.46	6.46
O&M	p/kWh	0.96	0.92	0.90	0.90	0.89
Levies	p/kWh	-	-	-	-	-
Levelised cost of energy	p/kWh	**12.68**	**11.24**	**10.43**	**10.19**	**10.11**

3.78. This can be explained through the higher relative increase in heat delivered versus increase in capex. This option is estimated by AECOM to cost £16.3m vs. £4.25m in Option 2 (a 3.8x increase in capex) but will deliver 29.27GWh/year when all connections are made versus 3.12GWh in Option 2 (a 9.4x increase in heat supplied):

FIRST PHASE OF CONSTRUCITON		
Start year	Year	2021
End year	Year	2025
Duration	Years	4
Money terms:		Real

		Real	Discounted
Generation	£000	12,262	10,531
Distribution	£000	4,049	3,291
Retail	£000	-	-
Total first phase	£000	**16,311**	**13,822**



3.79. Comparing this option to the BAU option and Do Nothing option. It should be noted that a positive value represents an increase in cost a negative value represents a decrease in cost:

OPTION 3B vs BAU

Building Text	Heat load kWh/year	Carbon vs Do Nothing TCO2e/Y	Carbon vs BAU TCO2e/Y	Heat Network LCOH p/kWh	BAU LCOH p/kWh	Revenue cost of heat £/year	Financial NPC of heat £NPC	NPC vs. Financial Do Nothing £NPC	NPC vs. Social Do Nothing £NPC	NPC vs. BAU £NPC
Town Hall & Assembly Hall	990,689	-145	-32	10.19	9.41	100,951	2,231,273	703,680	85,946	206,877
Portland House	181,050	-24	-6	10.19	25.96	18,449	407,769	43,946	-61,070	-613,155
Museum	201,700	-27	-6	10.19	12.22	20,553	454,278	139,438	22,445	-81,393
Library	153,402	-20	-5	10.19	21.49	15,632	345,499	83,174	-5,805	-370,781
Law Courts	350,835	-47	-11	10.19	19.82	35,750	790,166	313,785	110,288	-720,630
WICC	308,916	-5	-5	10.19	10.64	31,479	695,755	-18,495	-80,133	-18,495
Union Place Hotel	148,900	-2	-2	10.19	8.82	15,173	335,360	49,898	20,187	49,898
UP Comm Phase 1	17,832	0	0	10.19	8.16	1,817	40,162	8,539	4,981	8,539
UP Resi Phase 1	662,418	-11	-11	10.19	13.68	67,500	1,491,927	-476,984	-609,158	-476,984
UP Resi Phase 2	93,886	-2	-2	10.19	13.73	9,567	211,454	-68,680	-87,413	-68,680
UP Comm Phase 2	11,068	0	0	10.19	8.49	1,128	24,928	4,501	2,293	4,501
Guildbourne House	236,487	-31	-8	10.19	10.79	24,098	532,627	278,337	141,166	-21,749
Davison Leisure Centre	915,062	-121	-29	10.19	9.74	93,245	2,060,944	1,121,918	591,149	125,482
Pavilion Theatre	296,402	-39	-9	10.19	11.07	30,203	667,570	345,024	173,100	-45,138
Connaught Theatre	253,269	-34	-8	10.19	11.07	25,808	570,425	294,816	147,910	-38,569
Davison C of E Secondary School for Girls - WALLACE BUILDING	217,928	-29	-7	10.19	15.70	22,207	490,828	206,640	80,233	-252,695
Davison C of E Secondary School for Girls - MAIN BUILDING	539,759	-72	-17	10.19	15.70	55,001	1,215,670	511,800	198,720	-625,867
Royal Mail	601,965	-80	-19	10.19	10.79	61,340	1,355,772	708,491	359,330	-55,361
Crown Buildings	406,530	-54	-13	10.19	10.79	41,425	915,604	478,471	242,669	-37,387
Worthing Hospital	10,767,608	-1,429	-343	10.19	10.17	1,097,219	24,251,289	12,982,182	6,736,575	452,140
Splashpoint Leisure Centre	2,418,485	-321	-77	10.19	9.74	246,444	5,447,020	2,965,200	1,562,390	331,645
Worthing Hospital - HOMEFIELD	247,958	-33	-8	10.19	10.17	25,267	558,461	298,955	155,131	10,412
Sussex Police West Downs Division	55,057	-7	-2	10.19	10.79	5,610	124,002	64,800	32,865	-5,063
West Sussex Health & Social Care	54,938	-7	-2	10.19	10.17	5,598	123,734	66,237	34,371	2,307
Lyndhurst Infant School	99,167	-13	-3	10.19	17.44	10,105	223,349	86,005	28,484	-152,441
Stagecoach	804,226	-13	-13	10.19	8.25	81,951	1,811,314	370,538	210,069	370,538
Grafton	801,366	-13	-13	10.19	13.01	81,659	1,804,873	-460,199	-620,098	-460,199
Cornelia Grange	432,588	-57	-14	10.19	10.17	44,081	974,294	521,558	270,641	18,165
Wicker House	133,614	-18	-4	10.19	10.79	13,615	300,931	157,259	79,758	-12,288
41-43 South Street	219,635	-29	-7	10.19	11.07	22,381	494,672	255,664	128,267	-33,447
56 Montague Street	722,145	-96	-23	10.19	11.07	73,587	1,626,447	840,605	421,735	-109,972
Debenhams Plc	892,955	-118	-28	10.19	11.07	90,992	2,011,153	1,039,435	521,488	-135,984
Marks & Spencer Plc	1,621,610	-215	-52	10.19	11.07	165,242	3,652,263	1,887,618	947,025	-246,948
Beales	602,330	-80	-19	10.19	11.07	61,377	1,356,595	701,136	351,762	-91,726
13-15 South Street	261,175	-35	-8	10.19	11.07	26,614	588,230	304,018	152,527	-39,773
BG Site	530,502	-9	-9	10.19	13.01	54,058	1,194,821	-304,651	-410,503	-304,651
Teville Gate	2,019,443	-34	-34	10.19	13.01	205,781	4,548,280	-1,159,702	-1,562,647	-1,159,702
Total	29,272,902	-3,271	-851		11.05	2,982,909	65,929,741	25,344,958	10,376,678	-4,598,577

3.80. The substantial improvement on the levelized cost of heat in this option, suggests that this option would represent collective value for money with a £4.60m saving versus the BAU counterfactual. However, were optimism bias included it is likely that this option would suffer more greatly than the Civic Quarter only options due to a number of factors with few mitigating circumstances, the key being:

- While the Civic Quarter asset managers have been engaged throughout the feasibility study and a discussion and broad agreement on what a "green heat" tariff might look like (i.e. higher than a gas counterfactual) no such engagement has been had, at a project level, with the wider town centre buildings. As such, while we might hope that a green tariff could be negotiated, many offtakers may simply not accept, without wider regulatory requirement, the higher tariff needed to make this option work;

- Capital expenditure on the distribution network beyond the Civic Quarter / Union Place area has been done at a high level (Mapping & MasterPlanning). The majority of HNDU detailed feasibility studies have suggested something close to a 50:50 distribution to energy generation (including energy centre structure and balance of plant) ratio. The current ratio is 25:75 with a much more detailed analysis of energy generation costs having been undertaken as this was done as part of the detailed feasibility study for the Civic Quarter. While a SSHP solution may entail a greater ratio of energy to distribution it intuitively feels probable that distribution costs may be higher when utility pinch points, access, traffic management requirements etc. are looked at in greater detail.

- Secondary low/zero carbon heating in the form of the Ground Source Heat Pump either within Homefield Park or within the playing fields of Davidson Leisure Centre would need to be negotiated and the heat capacity potential evaluated in greater detail.

- Connecting a 3MW SSHP to the electricity grid is more likely to require a grid reinforcement cost than a 350kW GSHP. While engagement with the DNO has been initiated, the cost of connection has yet to be confirmed.

- However, a key assumption driving the above assessment is the cost to decarbonise Worthing Hospital. Currently the BAU case and the SSHP town centre option suggests a very similar LCOH. As such the impact on the overall VFM analysis when compared to the BAU case is relatively small (£452k net present cost). Were Worthing Hospital's cost of decarbonising heat, with more detailed analysis, to be significantly higher than the high-level estimate established for this analysis, then the VFM case would significantly improve (and indeed vice-versa).

3.81. While there are risks, the carbon saving potential of this option is substantial. By accessing elevated sewer source heat the seasonal coefficient of performance of the SSHP is estimated to be 3.81 versus building level ASHPs which, without significant fabric enhancements, may be expected to operate with SCOPs of 2.0. This difference in performance is driving the enhanced carbon savings of this options vs the BAU option at 851 TCO2e less carbon per year.

3.82. The BEIS published value of reducing non-traded carbon is substantially higher than traded carbon as any reduction in those emissions do not permit another carbon producer in the EU to utilise that reduced carbon. All buildings within the Town Centre, including Worthing Hospital, would be expected to be categorised as non-traded (i.e. not part of the EU Emissions Trading Scheme) and as such the social value of displacing an additional 851 TCO2e would average £95/TCO2e (2018 prices) over the period 2020-2040 (the expected useful economic life of the SSHP), equivalent to £80.8k/year of additional social value.

3.83. **Conclusion: this option presents substantial carbon savings over both the Do Nothing and the Business As Usual options. While it has been assessed to present an overall positive net present value when compared to the Business As Usual option, there remain substantial uncertainties over the potential to expand the network to buildings identified as the project has not, at this stage, assessed the willingness and appetite of these buildings to join the network and pay a price for heat reflective of the low carbon content. As such in reality this option would likely require a social investor to first deliver Option 2 to enable Option 3 to be delivered at a point when the Sewer Source heat resource has been proven and engagement with the wider town centre offtakers has been established.**

3.84. **It is therefore recommended that this option is compared to other options presenting VFM for the town decarbonisation and if found to be the highest scoring is taken to the Commercial Case for evaluation against the highest scoring option that decarbonises the Civic Quarter.**

Evaluation of options

3.85. The options appraised in the sections above can be summarised as follows:

	Investment in Heat Network (£m)	Heat Network p/kWh LCOH (40YR 3.5%)	Annual heat to end customers (kWh/year)	% heat delivered by LZC heating	Emissions agains do nothing (TCO2e/year)	Emissions against BAU (TCO2e/year)	Net present cost/(saving) against BAU (£m)	Net present cost/(saving) against social do nothing (£m)	Net present cost/(saving) against financial do nothing (£m)
Option 1: CQ GSHP	1.89	10.39	2,187	87%	-289	-14	-1.50	-0.04	1.36
Option 2: CQ SSHP	4.25	13.82	3,121	100%	-360	-218	0.42	1.69	3.29
Option 3: Town SSHP	16.31	10.19	29,273	97%	-3,271	-851	-4.60	10.38	25.34

3.86. The essence of this appraisal lies in the level of aspiration to decarbonise Worthing Town Centre and the extent to which public and private buildings do or do not buy into this vision. The Strategic Case has clearly set Adur & Worthing's 2030 objective of decarbonising public buildings and 2045 target of decarbonising all buildings.

3.87. The Open Loop aquifer based ground source heat pump option (O/L GSHP) presents a relatively low cost means of decarbonising the civic quarter buildings and has been appraised to be cost competitive against both an individual building decarbonisation option (BAU) as well as, albeit marginally, the social cost of continuing to combust gas for heating.

3.88. Should core technical risks be addressed it is possible that this option could be in part or wholly outsourced by the private sector due to the relatively high deliverability of the scheme (small number of public sector customers), minimising public sector capital at risk whilst achieving the fundamental decarbonisation of the Civic Quarter buildings.

3.89. However, this option has several drawbacks:

- It is fundamentally limited in its expansion potential. Option 3A, which considered the most cost effective means of technology selection for an expanded town network, evaluated that the Open Loop system combined with Marine Source, a logical technology when expansion is undertaken, was approximately 7% more expensive than the Sewer Source heat pump option (whole life cost of 9.33p/kWh vs. 8.74p/kWh when pricing only 3MW of low/zero carbon heating technology) and approximately 10% less efficient (combined CoP of 2.69 vs. the SSHP estimated at 2.97);
- There are a number of technical uncertainties over this option that would need to be resolved prior to this option being taken forward. In order to achieve this the project would need to incur the cost of a trial bore hole, estimated at approximately £150,000.

3.90. The Sewer Source Heat Pump option has been appraised to **not** represent value for money if limited to only the Civic Quarter and Union Place (Option 2). However, when the intention is to decarbonise the town centre (Option 3) a value for money case has been put forward when compared to the BAU option (combined with additional Ground Source Heat Pump technology) and the technology itself was appraised by AECOM to be the most cost effective in Worthing when compared to alternative low or zero carbon options (LZC) – see Option 3A.

3.91. If this option is to be taken forward it will be necessary to evaluate the seasonal flow rates and temperatures that the sewer main offers. AECOM, working with Landmark Wastewater Solutions, have estimated a budget requirement of £41,555 to evaluate this option and further refine cost estimates.

3.92. The key drawbacks of this option can be summarised as follows:

- This option relies heavily on the presumption that key anchor loads, most notably Worthing Hospital, will agree that a social tariff that is reflective of the low/zero carbon make up of the heat supplied is acceptable when compared to the financial cost of a gas alternative;
- The timing of when the town centre buildings would be willing to connect to the network has been assumed to be 2025; however, some buildings may have undertaken boiler replacement already and so may be unwilling to connect to the network at this point in time. As such there is substantial connection risk for this option that would need to be evaluated through detailed feasibility work;
- A detailed cost assessment of the wider network has not, at this stage, been undertaken with the wider town centre decarbonisation assessment having been carried out as part of a high-level heat mapping and masterplanning assessment of the Worthing area. As such core capital costs could be higher than forecast;

3.93. Given the substantial variance in implication for the commercial case of selecting either Option 1 or Option 3 a workshop was held to qualitatively evaluate which option was preferred:

	Option 1: Civic Quarter O/L	Option 3: Town Centre SSHP
Alignment with 2030 strategic goals	If proven viable the O/L GSHP option presents a cost effective means of decarbonising civic quarter heat	If proven viable the SSHP option has been assessed to be more expensive than Option 1 both in financial and social terms to deliver the civic quarter only decarbonisation objective.
Alignment with 2045 strategic goals	While an expansion could be explored, the aquifer resource has been assessed to be insufficient to meet wider demand requirements and therefore offers no significant spare capacity for wider heat decarbonisation	Option 3 has been assessed by AECOM to be the most cost effective means of the wider heat decarbonisation of Worthing given the assessment of 3MWth of heat capacity available.
Cost of further assessing option viability	In order to test viability of this option it has been assessed that £150,000 would be required for a 100m borehole to be drilled. This would not be an insubstantial	In order to test viability it has been assessed that c£20k would need to be spent to undertake a detailed feasibility assessment of the sewer resource. This relatively

	investment and would need to be written off if found to be unviable.	low up front expense makes this option attractive.

Conclusion

3.94. In light of the wider town centre decarbonisation potential that the Sewer Source Heat Pump (Option 3) offers and the lower long term cost as its potential is realised, it was felt that this was more in line with Worthing's strategic aim of 2050 net zero. As such this has been proposed to be taken to Commercial Case for evaluation.

4. Commercial Case

Introduction

4.1. The Economic Case evaluated a number of options for the decarbonisation of space heating and hot water requirements for the public sector buildings in Worthing's Civic Quarter. Ultimately it concluded that while a Ground Source Heat Pump option could potentially decarbonise the Civic Quarter, it placed not insignificant limitations on the ability to further decarbonise Worthing town centre.

4.2. For this reason, while the Sewer Source Heat Pump option was relatively more expensive for only the Civic Quarter, it presented the greatest value for money when considering the wider decarbonisation of Worthing. As such this was taken forward to the Commercial Case.

4.3. The Commercial Case will look to evaluate the preferred means of successfully delivering the project. It will undertake this evaluation as follows, sections in red have been removed as they are commercially sensitive:

- Consider the phasing of project development of the town centre scheme + civic quarter and evaluate the extent to which the initial phase would be sufficiently attractive to third party investment;
- Assessment of possible tariffs with the objective of establishing sufficient project returns over a 40 year appraisal period to attract investment while demonstrating value for money to customers on the network;
- Testing the proposed tariff structure with the proposed heat offtakers and assessing appetite for connection;
- In light of the potential project returns, consideration will be made as to the appetite for investment, now and in the future, by private sector participants. Consideration will be made for possible funding structures that could encourage private sector investment with the objective of minimising public sector capital at risk;
- Having considered the extent to which private sector investment may or may not be possible, an assessment will be made of the types of delivery structures that could potentially achieve the investment desired. In part this will be informed through continued dialog with the private sector following an initial investor day held in September 2020;
- With a preferred delivery structure proposed, the Commercial Case will then develop a procurement strategy to be undertaken by Worthing Borough Council pending approval to do so;
- The financial implications of the Commercial Case to the Worthing Borough Council will be assessed in the Financial Case.

Distinguishing phases for investment

4.4. While Option 3B within the Economic Case identified a number of buildings within the Town Centre for future connection it is evident that such a network could not be delivered in a single phase of work. Further, that at the point when construction would start for the first phase of work that there would unlikely be a guarantee that the proposed future phase connections would connect to the network. As such it is critical that the first phase of work is financially robust enough to warrant investment in of itself if the option of attracting private investment is to be explored.

4.5. The Economic Case evaluated a Civic Quarter only option, served by the Sewer Source Heat Pump, but found that the whole life cost of heat from that solution would be more expensive than a low carbon counterfactual (in building Air Source Heat Pumps). As such the first phase of connections would need to be larger than the civic quarter only scheme but still have a manageable number of connections to allow for effective negotiations.

4.6. Internal discussions were held with relevant council officers and their commercial consultants (1Energy), technical consultants (AECOM) and HNDU and it was proposed that all buildings outside of the civic quarter that were under Worthing Borough Council, WSCC control or which were planned new developments (due to the possibility of using planning provisions to better ensure connection) would be targeted for the first phase. Additionally, Worthing Hospital would be targeted given the substantial heat load that it represents.

4.7. Due to the timing of the Worthing Integrated Care Centre (WICC) project it may or may not be possible to connect it in Phase 1 of the heat network. If not connected in Phase 1, connection at a future date would be sought. As such the WICC has been removed from the project for connection to the initial phase of work.

4.8. As such the buildings sought to negotiate tariff terms with for the first phase of work are as follows:

CUSTOMER	Control		2022	2023	2024	2025	kW Peak
Town hall	Worthing Borough Council	kWh	621,648	621,648	621,648	621,648	254
Assembly hall	Worthing Borough Council	kWh	369,041	369,041	369,041	369,041	312
Portland House	Worthing Borough Council	kWh	181,050	181,050	181,050	181,050	167
Museum & Art Gallery	Worthing Borough Council	kWh	201,700	201,700	201,700	201,700	76
Library	West Sussex County Council	kWh	153,402	153,402	153,402	153,402	199
Law Courts	Ministry of Justice	kWh	350,835	350,835	350,835	350,835	418
UP Hotel	Private developer	kWh		148,900	148,900	148,900	69
UP Comm Phase 1	Private developer	kWh		17,832	17,832	17,832	7
UP Resi Phase 1	Private developer	kWh		662,418	662,418	662,418	911
UP Resi Phase 2	Private developer	kWh				93,886	130
UP Comm Phase 2	Private developer	kWh				11,068	5
Guildbourne House	Environment Agency	kWh				236,487	141
Davison Leisure Centre	Worthing Borough Council	kWh				915,062	373
Pavilion Theatre	Worthing Borough Council	kWh				296,402	191
Connaught Theatre	Worthing Borough Council	kWh				253,269	163
Davison C of E Secondary School for	West Sussex County Council	kWh				217,928	320
Davison C of E Secondary School for	West Sussex County Council	kWh				539,759	794
Worthing Hospital	NHS Trust	kWh				10,767,608	5,227
Splashpoint Leisure Centre	Worthing Borough Council	kWh				2,418,485	985
Worthing Hospital - HOMEFIELD	NHS Trust	kWh				247,958	120
Sussex Police West Downs Division	Sussex Police	kWh				55,057	33
West Sussex Health & Social Care	West Sussex County Council	kWh				54,938	27
Lyndhurst Infant School	West Sussex County Council	kWh				99,167	176
Stagecoach	Private developer	kWh				804,226	328
Grafton	Private developer	kWh				801,366	1,006
BG Site	Private developer	kWh				530,502	666
Teville Gate	Private developer	kWh				2,019,443	2,536
Total		**kWh**	**1,877,676**	**2,706,826**	**2,706,826**	**23,069,439**	

4.9. Discussions with relevant officers from West Sussex County Council, Worthing Borough Council, the Ministry of Justice and Worthing Hospital have begun over Memorandums of Understanding. While an ambitious profile of connections, the Civic Quarter buildings (2022 connection) have been engaged with since April 2020. Commercial consultants 1Energy are engaging with all the non-Civic Quarter connections identified as well as progressing heads of terms for future Energy Supply Agreements (see tariff section below) with the objective of getting heads of terms Letters of Intent, based on contract principles agreed in 2021.

4.10. Remaining buildings identified as part of AECOM's technical assessment of the heat network potential of Worthing that would be hoped to be connected at a future date are:

	kWh	kW peak
Royal Mail	308,916	126
Crown Buildings	406,530	242
Cornelia Grange	432,588	210
Wicker House	133,614	80
41-43 South Street	219,635	142
56 Montague Street	722,145	466
Debenhams Plc	892,955	576
Marks & Spencer Plc	1,621,610	1,045
Beales	602,330	388
13-15 South Street	261,175	168
Total	**kWh**	**5,601,498**

Project delivery vehicle

4.11. On the basis that a private investor is found there are several options that the private investor may opt for:

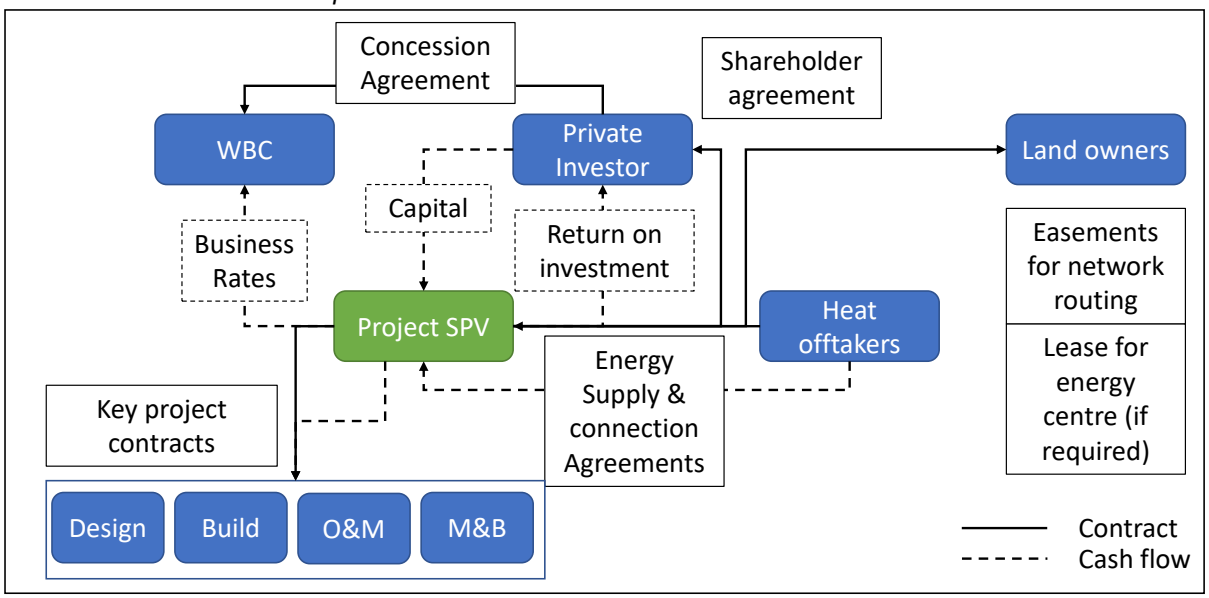
- Invest in the project using an existing corporate balance sheet – e.g. an existing Energy Services Company (ESCo) may opt for this route;

- Incorporate a Special Purpose Vehicle (SPV), limited by shares (LTD) or possibly limited liability partnership (LLP);
- Variants of the above (e.g. incorporate SPV that consolidates into an investment fund's balance sheet);

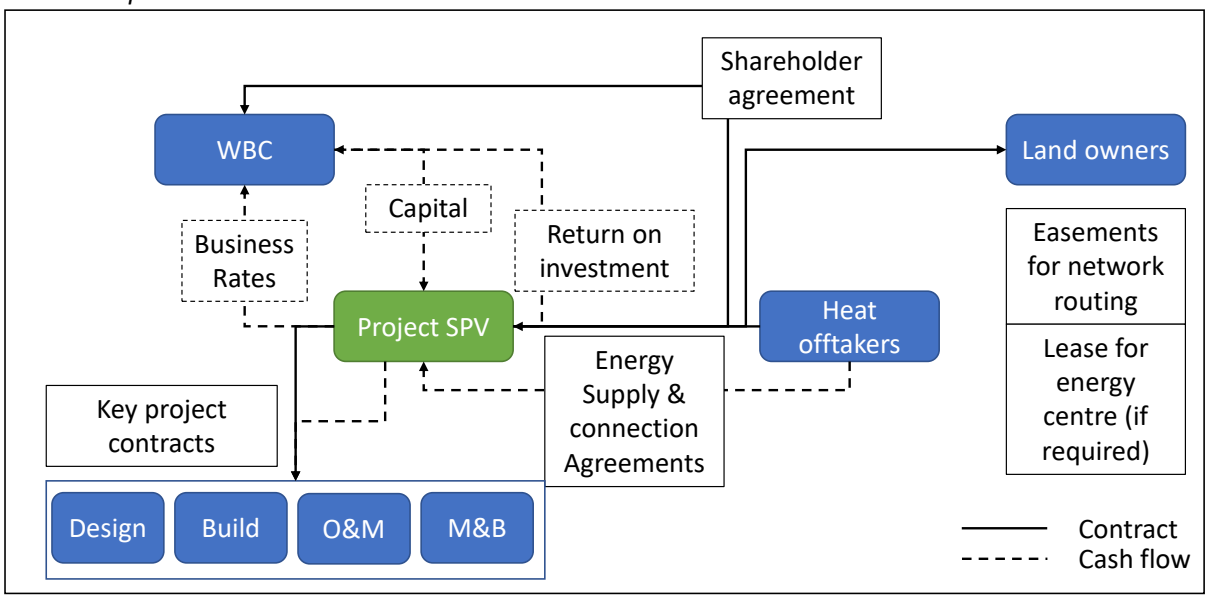
4.12. Were Worthing Borough Council to invest in the project these options would be available; however, if HNIP grant funding is sought, HNIP requires an SPV to be incorporated for LA controlled projects that have capex in excess of £2.4m. Given a grant is likely required whether it is publicly or privately funded, for the LA as investor option, **only** the SPV route would be possible.

4.13. Below are indicative contractual and cash flow structures for both the private sector and public sector investment scenarios:

4.14. *Private investor ownership*



WBC ownership



4.15. The key difference between the private and public ownership options is the absence of a concession agreement in the public sector option. Should a private investor be found it will be essential to ensure that an appropriate concession agreement is negotiated on behalf of the heat offtakers.

4.16. The key provisions of such a concession agreement would need to be:

- Period over which the concession is permitted to operate and the mechanism for extending the concession in light of subsequent investments made, e.g. extending the network to the town centre. It is important that a method to encourage ongoing investment in the network is established and this work would need to be undertaken in consultation with legal professionals should this business case be approved. At this stage it is proposed that a 40 year concession is considered as this is the period over which financial appraisal has been made. It should be noted that this would not commit the heat offtakers to remain customers for this period, simply that the project SPV is essentially licensed to operate for that period. Following the cessation of the concession all residual assets would pass to the heat offtakers;

- The minimum performance standards that the network operator must adhere to, failing which the heat offtakers would be contractually permitted to step in and appoint a new operator or alternatively penalties could be imposed. Standards for consideration are summarised below:
  - Minimum average quarterly whole system efficiency level;
  - Seasonally adjusted minimum flow temperatures;
  - Minimum water quality level;
  - Maximum carbon intensity of the network in a given period;
  - Average carbon intensity of the network in a given period;
  - Hot water delivery time;
  - Call out times for differing severity of events;

- Reporting obligations of the SPV, e.g. KPI reporting, financial reporting, tariff benchmarking etc.

- Provisions on tariff escalation – e.g. benchmarking of the variable cost inflation to an agreed electricity price index. The purpose of this is to try and ensure long-term consistency in the tariffs offered to the various offtakers;

- Ensuring that the concessionaire has sufficient experience and resources to develop and operate the concession: e.g.
  - Evidence of funds (including contingent equity) sufficient to capitalise the SPV to meet forecast capex;
  - Management structure;
  - What guarantees will they provide in the event that the SPV becomes insolvent? This is important as should the SPV become insolvent it would need to be clear how heat will be provided both in the short term and more long term. It is possible that Worthing Borough Council would be seen as the supplier of last resort and the concession agreement would need to consider this event, potentially requiring clauses within the Energy Supply Agreements

to help spread this risk. This will need to be further explored as part of the next stage of work in consultation with legal professionals as well as the heat offtakers being engaged by 1Energy on behalf of Worthing Borough Council.

4.17. Should the private investor option be taken forward, legal advice would need to be obtained to draft and negotiate the terms of the concession agreement. An existing concession agreement template is available free of charge from HNIP (https://tp-heatnetworks.org/heat-contract-templates/) and as such it is hoped that much of the key legal drafting has already been completed. All other contracts (with the exception of the Energy Supply Agreement and Connection Agreement for Worthing Borough Council buildings) would be expected to be managed and negotiated by the private investor, not Worthing Borough Council.

4.18. Should Worthing Borough Council seek to invest solely or as a joint venture with a private investor a number of legal contracts would need to be developed for the project SPV:

- Design, build, operate & maintain;
  - These could either be procured as a single DBOM contract or else procured separately. While splitting the contracts would likely expand the pool of possible bidders, a key risk of doing so is that there is not robust enough handover between each contract such that were an issue to arise each party may seek to blame the work of another party involved. As such were this option taken forward it would be necessary to appraise Worthing Borough Council's strength in managing the interface of complex infrastructure delivery contracts. Either way there are a number of contractors operating in the UK capable of delivering heat networks;
- Metering & Billing (M&B) including customer call centre for both commercial and residential customers;
- Energy supply agreements and one-off connection agreements;
- Easements (or possibly time limited wayleaves if permanent easements cannot be secured) for buried pipework;
- Shareholder agreement and articles of association of the SPV. It may not be necessary for a shareholder agreement to be drafted if there is a sole investor. The articles of association could, possibly via a requirement in the concession agreement, be more specific on the objectives of the project SPV to deliver low carbon and affordable heat to buildings in Worthing and its surroundings.
- Lease agreements would be required for the energy centre located in the municipal car park, plant in assembly hall's existing plant room, and Union Place where pumping equipment is required for the low temperature network supplying heat from the sewer main to the heat pump located in the Civic Quarter energy centre. At this stage it is assumed that all of these leases would accrue a peppercorn rent: this will need to be confirmed in the next stage of work.

Procurement Strategy

4.19. On the basis that a private investor is the preferred method for delivering the project, Worthing Borough Council would be procuring two contracts:

- A concession agreement to deliver the project;
- Energy supply agreements combined with a heat connection agreements for each of its buildings under its control

4.20. As part of the concession agreement there would need to be formal permission to site key plant and equipment within the Multi-Storey Car Park and Assembly Hall plant room as these are controlled by Worthing Borough Council. This would most likely come in the form of an Energy Centre lease for which a standard form contract is available from the HNIP website which could be adapted for the specific requirements of the project.

4.21. From a procurement perspective it will likely be necessary to simultaneously run competitive tenders for these contracts. The ESA and connection agreements for **all** public sector offtakers proposed to connect to the network in the first phase of work would most likely need to tendered at this point, possibly as a single tender to simplify matters but this will need to be confirmed. This follows guidance by legal consultants Womble Bond Dickinson in BEIS' published "Guidance on Procuring Finance for Heat Networks" (section 2.5.3). The rationale for this is that a private investor would be concerned that were time and materials allocated to the project but subsequently it was found that a number of public sector offtakers did not connect due to another bidder offering a lower price, then costs incurred would have been wasted. To mitigate this risk a simultaneous procurement is proposed with each procurement contingent on the successful outcome of the other.

4.22. The key outcomes of the concession agreement would be those set out in section 4.16 and would in-effect reflect an outcomes based procurement as the concessionaire would not be required to adopt the network as designed by the project's technical consultant's (AECOM) but instead would be required to bid on the following key outcomes:

- Buildings connected as set out in section 4.8;
- Carbon intensity of the network to be no worse than the scheme set out by AECOM:

CARBON ANALYSIS: Project carbon

BY ENERGY IMPORTED:		Av. Annual YR 1-15	Total YR 1-15	Av. Annual YR 16-40	Total YR 16-40	Av. Annual YR 1-40	Total YR 1-40
First period	15						
Second period	40	*Tonnes CO2*	*Tonnes CO2*	*Tonnes CO2*	*Tonnes CO2*	*Tonnes CO2*	*Tonnes CO2*
Sewer heat		-	-	-	-	-	-
Natural gas		**828**	**12,424**	**1,020**	**25,501**	**948**	**37,925**
BEIS manufacturer electricit		**885**	**13,278**	**267**	**6,681**	**499**	**19,960**
Total		**1,713**	**25,702**	**1,287**	**32,183**	**1,447**	**57,885**

- Tariff and connection charges as per the ESA/heat connection procurement
- System efficiency no worse than that proposed by AECOM:

WHOLE SYSTEM EFFICIENCY — Year: 2035

Energy	Primary import *MWh*	Export to network *MWh*	Export to grid *MWh*	Network Losses *MWh*	**Customer Supply *MWh***	Whole system *%*
Sewer heat	13,571	-	-	-	-	
LTHW	-	25,436	-	2,057	23,378	
Natural gas	5,545	-	-	-	-	
BEIS manufacturer electricity price (n	8,146	-	-	-	-	
Total	**27,262**	**25,436**	**-**	**2,057**	**23,378**	**170.76%**

N.b. the 170.76% is customer supply divided by [natural gas imports + electricity imports] (i.e. excluding sewer heat as this is treated as heat that would otherwise have been wasted

- Additional requirements as per section 4.16;

4.23. The key outcomes of the procurement of the Energy Supply Agreement and connection agreement would be for a bidder to offer a price of 60 degrees Celsius in-building heat supply that:

- the fixed, variable and any other up-front or in-contract costs, when combined and expressed as a p/kWh value, is cheaper than the 10.10p/kWh (40 year appraisal) proposed by the heat network solution when a 3.5% discount rate is used from the offtaker's perspective;
- the carbon intensity of the proposed solution is no worse than the proposed sewer source heat pump solution (see section 4.22); and
- the customer service quality is no worse than those proposed within the concession agreement

4.24. With regards the concession agreement, as a detailed specification of what is to be provided is not proposed (the technical design of the network being a concept design), such a situation would lend itself better to Competitive Dialog with the aim of addressing the need to decarbonise the heating systems of key buildings within Worthing. Adopting this approach will take up more time and resource; however, doing so should better ensure that the project is flexible to the requirements of private investors but with key parameters, notably the proposed tariff, already determined.

4.25. With regards the Energy Supply Agreement it is proposed that Open Procedure is adopted with the key requirements as set out per section 4.23.

Commercial Case conclusions

4.26. The Commercial Case has established that a tariff designed to achieve a pre-tax real project return of 10% for a private investor is hoped to be sufficient to attract private sector interest to bid for a 40 year concession to connect key buildings in Worthing to a low carbon heat network;

4.27. The tariff proposed is as follows:

- Redacted

4.28. Business rates have been highlighted as having the potential to have a material impact on returns. With this in mind the rationale for considering a rebate, to the extent that Worthing Borough Council retains rates, is assessed in the Financial Case. In the event that a rebate cannot be offered it is estimated that the variable charge would need to be increased (redacted information) in order to maintain a 10% post-tax rate of return. It is hoped that a middle ground could be secured with both an investor and the offtakers but even at this rate it is estimated that this would still represent value for money against the BAU case.

4.29. A simultaneous procurement of a concession to develop & operate the heat network and the public sector energy supply agreements would need to be undertaken with each agreement contingent on the other having been agreed.

Approvals arising from the Commercial Case

4.30. Approval is sought to implement the proposed procurement strategy on the basis that final approval to award contracts will be reserved for a Final Business Case. Competitive procurements will make this restriction clear.

4.31. Procurement, Legal and Commercial consultants will need to be procured to build on the existing HNIP legal documents freely available:

- A proposed concession agreement for competitive dialog;
- The Energy Supply Agreement for heat offtake;
- The Connection Agreement; and
- The Energy Centre lease

5. Financial Case

Introduction

5.1. The Economic Case rationalised taking forward a scheme with the long term goal of decarbonising not just Worthing's Civic Quarter but enabling the wider decarbonisation of buildings in Worthing Town centre utilising heat recovered from the public sewer adjacent to Union Place.

5.2. The Commercial Case sought to identify the heat connections necessary to enable an investible proposition. Buildings selected are those that are considered to be likely to actively engage with the project due to the buildings being in either direct or indirect control of key public sector entities: Worthing Borough Council, West Sussex County Council, Ministry of Justice and Worthing Hospital. The Commercial Case concluded that, on the assumption of connections identified agreeing to connect on the terms set out, private investment (supported by a central Government grant) could be possible, thereby meeting the core strategic objective of minimising public sector capital at risk while contributing towards the Authority's 2030 and longer-term carbon objectives.

5.3. As such the financial case for Worthing Borough Council focuses on the budgetary and accounting implications of a concession awarded to a private investor with the requisite skills to develop a low carbon heat network. It also considers the financial implications of heat offtake based on the tariff proposed.

5.4. Finally, business rates have been highlighted as having a material impact on overall investor returns. As such this will be analysed and proposals put forward to help mitigate the risk of investors seeing business rates as prohibitive to investment.

Budgetary implications of awarding a concession

5.5. Awarding a concession to a private sector investor that permits the concessionaire to supply heat to customers connected to their network utilising a network of insulated buried pipework and floor space within the proposed Multi-Storey Cark Park and existing Assembly Hall plant room, will have limited direct budgetary implications for the concession awarder, revenue or capital. This is because the concession agreement does not establish an unconditional obligation to pay cash to the concession grantor.

5.6. However, the establishment of a concession to develop and operate a heat network in Worthing may give rise to the possibility of contingent liabilities. This is particularly relevant for residential heat offtakers in the new developments within Worthing proposed to be connected to the network:

UP Resi Phase 1
UP Resi Phase 2
Grafton
BG Site
Teville Gate

5.7. This is because in the event that the heat network should become insolvent and the private investor is unable or unwilling to make up the shortfall, then the residents (and potentially commercial/public sector heat offtakers) would likely perceive Worthing Borough Council as the supplier of last resort. Domestic customers left without space heating or hot water would be a terrible outcome and the Authority would therefore likely intervene to ensure its residents were not left without a means of heating.

5.8. The Commercial Case highlighted this possibility and proposed (see section 4.16) to:

- Explore the possibility of parent company guarantee to keep the project SPV solvent while the investor refinances;
- Include clauses within the Energy Supply Agreements negotiated, particularly with the key public sector offtakers, to allow for a degree of costs to be recovered through the tariff. However, there would need to be strong provisions to ensure that operating costs are appropriately benchmarked each year and that the system is operating at or above the agreed operating efficiency – offtakers should not pay for poor performance. Nor should they pay for plant failure or unexpected asset replacement as the operator should have appropriate insurances in place.

5.9. Section **Error! Reference source not found.** of the Commercial Case analysed the forecast operating profit of the project (post-tax) and sensitivities were run in Section **Error! Reference source not found.** with no post-tax losses forecast at full operations under any of the downside scenarios run. Where key risks were highlighted to impact long term operating cash flows proposals were put forward to mitigate these.

5.10. As such while there is possibility of contingent liabilities relating to supplier of last resort arising at a future date it is hoped that the tariff structure proposed and the contractual provisions of both the Concession Agreement and Energy Supply Agreements to set out key performance indicators for the operation of the network that the likelihood of such a liability occurring is remote and therefore would not be expected to be accounted for or budgeted for as IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* requires a contingent liability be recognised only when a present obligation exists, payment is probable and the amount can be estimated readily – none of which would be true. This would be reviewed each financial year when the network has connected to customers.

Accounting implications of awarding a concession

5.11. Adur & Worthing Councils comply with the Code of Practice on Local Authority Accounting, issued by the Chartered Institute of Public Finance and Accountancy. Accounting policies and estimation techniques used by the Councils have regards to International Financial Reporting Standards (IFRS).

5.12. Awarding a concession to a private sector investor will potentially have accounting implications that would need to be considered prior to making such an award. The relevant standard under IFRS for service concessions is IFRIC 12: *Service Concession Arrangements.* However, IFRIC 12 provides the accounting approach for the private sector side of the service concession, not the public sector side. In 2011 the International Public Sector Accounting Standards Board (IPSASB) released IPSAS 32: *Service Concession Arrangements: Grantor*. IPSAS

32 is designed to create symmetry with IFRIC 12 such that the two sides of the contract would eliminate were the two sets of financial statements consolidated.

5.13. As such it would appear to be an accounting policy decision to formally account for the concession under IPSAS 32 as technically IFRS does not require the concession grantor to account for the concession. However, given IFRS 16: *Leases* (came into force in 2019) now requires lessors to account for all leases, longer than a year, on balance sheet (previously IAS 17: *Leases* allowed for an operating vs finance lease distinction) it would seem prudent to assume that the International Accounting Standards Board (IASB) may at some future date require the grantor to account for a concession where currently it would appear voluntary.

5.14. Were IPSAS 32 adopted, and Worthing Borough Council is the sole signatory of the concession agreement, it would be expected that the concession would be recognised on the Authority's financial accounts. This is because, in line with IPSAS 32 recognition criteria:

- The concession agreement would control the services the operator must provide: the buildings that are to be connected and the price that they are to be charged; and
- Residual interest after the concession period (proposed to be 40 years) would legally transfer to the concession grantor (although possibly they may transfer to the heat offtakers which will be explored in the next stage of work with legal professionals)

This position would need to be explored further, potentially with professional public sector accounting advice, particularly if the concession agreement may not be exclusively awarded by Worthing Borough Council but instead by all or some of the heat offtakers, including Worthing Borough Council.

5.15. If it is assessed that the concession would be on balance sheet, then the "Grant of a Right to the Operator Model" approach would be expected to be adopted (as opposed to the Financial Liability Model). This is because:

- The grantor does not have an unconditional obligation to pay cash or another financial asset to the operator for the construction of the heat network; and
- A right is granted to the operator to earn revenue from third-party users

5.16. Under either method an asset and liability would be recognised at the end of construction with the asset reflecting the fair value of the heat network's assets and the liability being the same amount as the asset recognised.

5.17. Subsequent recognition of the asset would be to treat the asset as part of Property, Plant & Equipment and depreciate it over the life of the concession (IPSAS 32: para 13).

5.18. Subsequent recognition of the liability under the "Grant of Right to the Operator Model" is to amortise it to the P&L as revenue (IPSAS 32: para 24 – n.b. for EBITDA presentation this would need to be highlighted as non-cash revenue). As heat demand is not forecast to change from 2025 onwards for the customers included in the first phase of work it may be expected that the profile of amortisation would be straight line from that point.

5.19. As such the accounting, under this method, should be largely presentational with both P&L and balance sheet being equally offset. It is possible that the long term liability recognised

might be included in certain financial metrics used by ratings agencies but at a peak of an estimated £10.49m (real) this would represent an increase of a little over 6% of Adur District Council's Statement of Accounts 2019/20 (total long term liabilities of £166.7m) it would be hoped that this would not have an adverse impact on Adur & Worthing's overall credit rating. This could be considered further possibly with professional financial advice if independent rating agency scores are used by the Authority for financing purposes e.g. non-prudential borrowing or other financial transactions where the credit rating of the Authority impacts the finance charge offered.

5.20. Below is an indicative profile of the possible balance sheet and P&L impact over a 10 year period for Worthing Borough Council's accounts:

		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Project cash flow											
Project capex	£000	3,988	429	-	6,967	-	-	-	-	-	-
WBC Financial Statements											
P&L											
Revenue (non-cash)	£000	100	110	110	285	285	285	285	285	285	285
Depreciation	£000	(100)	(110)	(110)	(285)	(285)	(285)	(285)	(285)	(285)	(285)
Net P&L impact	£000	-	-	-	-	-	-	-	-	-	-
Balance Sheet											
Asset value	£000	3,889	4,207	4,097	10,779	10,494	10,209	9,925	9,640	9,356	9,071
Liability value	£000	3,889	4,207	4,097	10,779	10,494	10,209	9,925	9,640	9,356	9,071

Budgetary implications of heat offake from the heat network

5.21. Worthing Borough Council owns a number of buildings in the Civic Quarter which are currently gas fired. The Economic Case considered a "Do Nothing" case which reflects the current cost of heating and assumes that this is simply continued. However, as both the Strategic and Economic Cases both stress – it will not be possible to continue as normal if Adur & Worthing's climate emergency commitment to net zero by 2030 for all their own buildings is to be met.

5.22. As such this section will examine:

- The current cost of heating and hot water;
- What it is has been estimated to cost by the technical consultants to decarbonise on an individual building basis (capital and revenue budget);
- The cost of connecting to the heat network and estimated annual charges over the next 10 years

5.23. **The Town Hall and Assembly Hall** have a shared plant room and as such are considered together on the basis that capital replacement would be a shared endeavour. Imminent replacement of the heating system has been assessed as part of AECOM's techno-economic assessment to be required. Below is a table setting out the estimated budgetary impact of the Town Hall and Assembly Hall combined (n.b. prices are in 2019 terms):

Town Hall & Assembly Hall			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Do Nothing Projection												
Current cost of fuel	£000		44	46	48	50	52	53	54	55	56	56
Consumption	*MWh*		*1,238*	*1,238*	*1,238*	*1,238*	*1,238*	*1,238*	*1,238*	*1,238*	*1,238*	*1,238*
Unit cost of gas	*p/kWh*		*3.57*	*3.73*	*3.89*	*4.05*	*4.20*	*4.26*	*4.37*	*4.42*	*4.48*	*4.54*
Annual maintenance	£000		4	4	4	4	4	4	4	4	4	4
Revenue budget impact	£000		49	51	52	54	56	57	58	59	60	61
Capital replacement	£000		200	-	-	-	-	-	-	-	-	-
Levelised cost (capital + revenue)	p/kWh	7.10										
Low Carbon Projection (BAU)												
Forercast cost of fuel	£000			73	73	73	74	76	73	72	72	72
Consumption	*MWh*			*495*	*495*	*495*	*495*	*495*	*495*	*495*	*495*	*495*
Unit cost of electricity	*p/kWh*			*14.79*	*14.79*	*14.76*	*14.85*	*15.26*	*14.73*	*14.53*	*14.63*	*14.50*
Annual maintenance	£000			13	13	13	13	13	13	13	13	13
Revenue budget impact	£000			86	86	86	86	88	86	85	85	84
Capital purchase	£000			200	-	-	-	-	-	-	-	-
Levelised cost (capital + revenue)	p/kWh	9.41										
Heat Network												
Forecast cost of heat	£000			62	62	62	62	64	62	61	61	61
Consumption	*MWh*			*991*	*991*	*991*	*991*	*991*	*991*	*991*	*991*	*991*
*Unit cost of heat**	*p/kWh*			*6.25*	*6.25*	*6.24*	*6.27*	*6.45*	*6.23*	*6.14*	*6.18*	*6.13*
Fixed cost of heat	£000			26	26	26	26	26	26	26	26	26
Revenue budget impact	£000			88	88	88	88	90	88	87	87	87
Connection charge	£000			172	-	-	-	-	-	-	-	-
Levelised cost (capital + revenue)	p/kWh	10.10										
Heat network vs Do Nothing												
Revenue budget impact +/(-ve) impact	£000			37	35	33	32	33	29	28	27	26
Capital budget impact +/(-ve) impact	£000		(200)	172	-	-	-	-	-	-	-	-
Heat network vs BAU												
Revenue budget impact +/(-ve) impact	£000			2	2	2	2	2	2	2	2	2
Capital budget impact +/(-ve) impact	£000		-	(28)	-	-	-	-	-	-	-	-

**The unit cost of heat is assumed to escalate in line with electricity prices*

5.24. The table above shows that the heat network cost of heat would be marginally higher than the low carbon alternative (£2k/year) and on average £32k/year more expensive than the current cost of the carbon intensive gas heating system.

5.25. The cost of connection is estimated to be £28k less expensive than the cost of the heating system replacement and such should represent a capital budget saving and would be deferred until 2022.

5.26. **Portland House.** Below is a table setting out the estimated budgetary impact of Portland House (n.b. prices are in 2019 terms):

Portland House			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Do Nothing Projection												
Current cost of fuel	£000		7	8	8	8	9	9	9	9	9	9
Consumption	*MWh*		*211*	*211*	*211*	*211*	*211*	*211*	*211*	*211*	*211*	*211*
Unit cost of gas	*p/kWh*		*3.50*	*3.65*	*3.81*	*3.96*	*4.12*	*4.17*	*4.28*	*4.33*	*4.39*	*4.44*
Annual maintenance	£000		5	5	5	5	5	5	5	5	5	5
Revenue budget impact	£000		12	13	13	13	14	14	14	14	14	14
Capital replacement	£000		-	51	-	-	-	-	-	-	-	-
Levelised cost (capital + revenue)	p/kWh	9.25										
Low Carbon Projection (BAU)												
Forercast cost of fuel	£000			14	14	14	14	15	14	14	14	14
Consumption	*MWh*			*91*	*91*	*91*	*91*	*91*	*91*	*91*	*91*	*91*
Unit cost of electricity	*p/kWh*			*15.83*	*15.83*	*15.80*	*15.90*	*16.33*	*15.77*	*15.55*	*15.66*	*15.52*
Annual maintenance	£000			13	13	13	13	13	13	13	13	13
Revenue budget impact	£000			27	27	27	27	27	27	27	27	27
Capital purchase	£000			315	-	-	-	-	-	-	-	-
Levelised cost (capital + revenue)	p/kWh	25.96										
Heat Network												
Forecast cost of heat	£000			11	11	11	11	12	11	11	11	11
Consumption	*MWh*			*181*	*181*	*181*	*181*	*181*	*181*	*181*	*181*	*181*
*Unit cost of heat**	*p/kWh*			*6.25*	*6.25*	*6.24*	*6.27*	*6.45*	*6.23*	*6.14*	*6.18*	*6.13*
Fixed cost of heat	£000			8	8	8	8	8	8	8	8	8
Revenue budget impact	£000			19	19	19	19	19	19	19	19	19
Connection charge	£000			51	-	-	-	-	-	-	-	-
Levelised cost (capital + revenue)	p/kWh	10.10										
Heat network vs Do Nothing												
Revenue budget impact +/(-ve) impact	£000			6	6	6	6	6	5	5	5	5
Capital budget impact +/(-ve) impact	£000		-	0	-	-	-	-	-	-	-	-
Heat network vs BAU												
Revenue budget impact +/(-ve) impact	£000			(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
Capital budget impact +/(-ve) impact	£000		-	(264)	-	-	-	-	-	-	-	-

**The unit cost of heat is assumed to escalate in line with electricity prices*

5.27. The cost of decarbonising Portland House via the heat network is estimated to represent a substantial capital budget saving (£264k) and be equivalent to the cost of replacing the existing boiler plant on a like-for-like basis.

5.28. From a revenue budget perspective, it is estimated that the heat network would be on average £8k/year less expensive than the BAU low carbon alternative and £6k/year on average more expensive than the current gas heating system.

5.29. **Museum and Art Gallery.** Below is a table setting out the estimated budgetary impact of the Museum and Art Gallery combined (n.b. prices are in 2019 terms):

Museum and Art Gallery			2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Do Nothing Projection												
Current cost of fuel	£000		10	10	10	11	11	11	12	12	12	12
Consumption	*MWh*		*235*	*235*	*235*	*235*	*235*	*235*	*235*	*235*	*235*	*235*
Unit cost of gas	*p/kWh*		*4.07*	*4.25*	*4.43*	*4.61*	*4.78*	*4.85*	*4.97*	*5.03*	*5.10*	*5.16*
Annual maintenance	£000		2	2	2	2	2	2	2	2	2	2
Revenue budget impact	£000		12	12	13	13	14	14	14	14	14	14
Capital replacement	£000		-	-	-	-	-	-	-	-	-	20
Levelised cost (capital + revenue)	p/kWh	7.18										
Low Carbon Projection (BAU)												
Forercast cost of fuel	£000			16	16	16	16	16	16	16	16	16
Consumption	*MWh*			*101*	*101*	*101*	*101*	*101*	*101*	*101*	*101*	*101*
Unit cost of electricity	*p/kWh*			*15.73*	*15.73*	*15.70*	*15.79*	*16.22*	*15.67*	*15.45*	*15.55*	*15.42*
Annual maintenance	£000			3	3	3	3	3	3	3	3	3
Revenue budget impact	£000			19	19	19	19	20	19	19	19	19
Capital purchase	£000			84	-	-	-	-	-	-	-	-
Levelised cost (capital + revenue)	p/kWh	12.22										
Heat Network												
Forecast cost of heat	£000			13	13	13	13	13	13	12	12	12
Consumption	*MWh*			*202*	*202*	*202*	*202*	*202*	*202*	*202*	*202*	*202*
*Unit cost of heat**	*p/kWh*			*6.25*	*6.25*	*6.24*	*6.27*	*6.45*	*6.23*	*6.14*	*6.18*	*6.13*
Fixed cost of heat	£000			3	3	3	3	3	3	3	3	3
Revenue budget impact	£000			16	16	16	16	16	16	16	16	16
Connection charge	£000			23	-	-	-	-	-	-	-	-
Levelised cost (capital + revenue)	p/kWh	10.10										

Heat network vs Do Nothing											
Revenue budget impact +/(-ve) impact	£000		4	3	3	3	3	2	2	2	1
Capital budget impact +/(-ve) impact	£000	-	23	-	-	-	-	-	-	-	(20)
Heat network vs BAU											
Revenue budget impact +/(-ve) impact	£000		(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Capital budget impact +/(-ve) impact	£000	-	(61)	-	-	-	-	-	-	-	-

**The unit cost of heat is assumed to escalate in line with electricity prices*

5.30. The Museum is not forecast to replace its boilers until 2030 and as such this would be bringing forward the heat decarbonisation by 8 years representing approximately 345 tonnes of additional carbon savings (the Museum and Art Gallery is estimated to have 43 tonnes of carbon emissions each year through the combustion of gas).

5.31. There is a clear value for money case of decarbonising the Museum if the decision to do so was brought forward to 2022 where there is estimated to be a £61k capital saving of connecting to the heat network versus a low carbon alternative.

5.32. The revenue budget impact of connecting to the heat network is forecast to be on average £3k/year more expensive than is currently paid for heating and £3k/year less expensive than the low carbon alternative.

5.33. **Worthing Borough Council** combined building analysis. The table below combines the building heating costs analysed above into a single revenue and capital budget analysis (n.b. prices are in 2019 terms):

Worthing Borough Council Buildings combiend		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Do Nothing Projection											
Revenue Budget	£000	73	75	78	81	83	84	86	87	88	89
Capital Budget	£000	200	51	-	-	-	-	-	-	-	20
Low Carbon Projection (BAU)											
Revenue Budget	£000		132	132	132	132	135	132	130	131	130
Capital Budget	£000		599	-	-	-	-	-	-	-	-
Heat Network											
Revenue Budget	£000		123	123	123	123	126	123	122	122	121
Capital Budget	£000		246	-	-	-	-	-	-	-	-
Heat network vs Do Nothing											
Revenue budget impact +/(-ve) impact	£000		48	45	42	40	41	36	34	34	32
Capital budget impact +/(-ve) impact	£000	(200)	196	-	-	-	-	-	-	-	(20)
Heat network vs BAU											
Revenue budget impact +/(-ve) impact	£000		(9)	(9)	(9)	(9)	(10)	(9)	(9)	(9)	(9)
Capital budget impact +/(-ve) impact	£000	-	(353)	-	-	-	-	-	-	-	-

5.34. From an overall capital budget perspective, connecting to the heat network would essentially be equivalent to the do-nothing case and would bring the Museum's heat decarbonisation forward by 8 years. Were an alternative low carbon option opted for it is estimated that this would be £353k more expensive than paying the estimated connection fee to the heat network.

5.35. From a revenue budget perspective, connecting to the heat network is estimated to increase revenue budget commitments across the Town Hall, Assembly Hall, Portland House and Museum & Art Gallery by an average of £39k per year. However, when compared to a low carbon alternative it is estimated to save on average £9k per year on the assumption that a policy to decarbonise heating for the civic quarter buildings in Worthing Borough Council's control was initiated in 2022.

5.36. On the basis that a firm commitment to decarbonise public sector buildings by 2030 has been announced connecting to the heat network option, as set out in the Commercial Case and presented above, has been assessed to represent value for money.

5.37. In line with the Commercial Case assessment of Energy Supply Agreements to be tendered to ensure fair and open procurement it will need to be assessed whether a cheaper heat supply could be procured that offers the same or better carbon intensity of the heat network proposed (see Commercial Case section 4.22).

Considering the value of business rates

5.38. As has been identified in the Commercial Case (see section 4.28) business rates have a material impact on post-tax returns – estimated to reduce the project's pre-tax returns from 10% to 3.65% (real 40 year appraisal):

RETURNS		Pre-tax (R)	Pre-tax (N)	Post-tax (R)	Post-tax (N)
Project hurdle rate	%	10.00%	12.75%	8.00%	10.70%
Assessment period	Years	40	40	40	40
Project IRR (pre-grant)	%	2.81%	4.36%	-0.34%	1.42%
Project IRR (post-grant)	%	10.00%	11.40%	3.65%	5.56%
Social IRR (pre-grant)	%	9.84%	11.48%	7.94%	9.70%
Project NPV (pre-grant)	£000	(3,622)	(3,791)	(4,909)	(4,888)
Project NPV (post-grant)	£000	0	(257)	(1,220)	(1,289)
Social NPV (pre-grant)	£000	(119)	(811)	(55)	(827)
Payback (pre-grant)	Years	27.10	19.67	48.68	34.58
Payback (post-grant)	Years	2.77	11.11	20.55	18.22
Disc. Payback (pre-grant)	Years	n/a	n/a	n/a	n/a
Disc. Payback (post-grant)		2.85	n/a	n/a	n/a
Social payback (pre-grant)	Years	12.88	12.08	15.67	14.42

R = Real; N = Nominal

5.39. Such a drop in returns would unlikely be acceptable to an investor where typically post tax hurdle rates tend to follow corporation tax adjusting for something like 20% reduction in pre-tax returns suggesting a possible post-tax real hurdle rate of 8% may be acceptable to investors. However, the estimated drop in returns represents an estimated 63.5% drop in real returns.

5.40. The rateable value for each of the public sector buildings will be based on the rental method whereby the valuation assessor considers the rental value of the building in question and the rateable value is a proportion of that value. Public sector and commercial buildings alike are subject to business rates. Such a valuation will largely be dependent on location (e.g. what other business may wish to locate there, proximity to transport links, customer base etc.) and building quality (e.g. services provided, level of refurbishment etc.). Whether the heating system is located within a plant room in the building or located in a separate building, i.e. heat supplied via a centralised heat network, would not be expected to impact the rental valuation: the basic requirement that space heating and hot water are available to the commercial tenants of the building are met in either circumstance.

5.41. As such to the extent that business rates are successfully received from a business undertaking to supply heat to these buildings, these would only be fiscally additive to Adur and Worthing's business rates budget. Therefore, were a local discount / rebate offered to such an undertaking it would not be expected to reduce the business rates' budget. This is because the rates collected from the public sector buildings are not expected to change as a result of connecting to a heat network.

5.42. Clearly only a portion of rates are retained locally and MHCLG has been clear in their 2018 consultation on *Business Rates Retention Reform* whose then minister – Rishi Sunak – now the Chancellor of the Exchequer wrote the forward) stated that:

> *"We have listened and responded by committing to greater business rates retention. This gives local authorities powerful incentives to grow and reinvest in their local economies; rewarding their efforts to plan ahead."*

5.43. With this in mind assuming a 50% local discount / rebate on rates (MHCLG having stated an intention to increase retention to 75% making this a potentially conservative assumption) would be estimated to provide the investor with a 6.45% post-tax real return but an 8.02% nominal post-tax return:

RETURNS		Pre-tax (R)	Pre-tax (N)	Post-tax (R)	Post-tax (N)
Project hurdle rate	%	10.00%	12.75%	8.00%	10.70%
Assessment period	Years	40	40	40	40
Project IRR (pre-grant)	%	2.81%	4.36%	1.00%	2.60%
Project IRR (post-grant)	%	10.00%	11.40%	6.45%	8.02%
Social IRR (pre-grant)	%	9.84%	11.48%	8.81%	10.48%
Project NPV (pre-grant)	£000	(3,622)	(3,791)	(4,100)	(4,237)
Project NPV (post-grant)	£000	0	(257)	(411)	(638)
Social NPV (pre-grant)	£000	(119)	(811)	754	(175)
Payback (pre-grant)	Years	27.10	19.67	34.94	29.19
Payback (post-grant)	Years	2.77	11.11	14.66	13.75
Disc. Payback (pre-grant)	Years	n/a	n/a	n/a	n/a
Disc. Payback (post-grant)		2.85	n/a	n/a	n/a
Social payback (pre-grant)	Years	12.88	12.08	14.24	13.26

R = Real; N = Nominal

5.44. At a 75% discount / rebate the post-tax real return is estimated to increase to 7.94% which would be very close to the estimated post-tax real hurdle rate of 8%:

RETURNS		Pre-tax (R)	Pre-tax (N)	Post-tax (R)	Post-tax (N)
Project hurdle rate	%	10.00%	12.75%	8.00%	10.70%
Assessment period	Years	40	40	40	40
Project IRR (pre-grant)	%	2.81%	4.36%	1.68%	3.19%
Project IRR (post-grant)	%	10.00%	11.40%	7.94%	9.32%
Social IRR (pre-grant)	%	9.84%	11.48%	9.25%	10.88%
Project NPV (pre-grant)	£000	(3,622)	(3,791)	(3,704)	(3,919)
Project NPV (post-grant)	£000	0	(257)	(15)	(320)
Social NPV (pre-grant)	£000	(119)	(811)	1,150	142
Payback (pre-grant)	Years	27.10	19.67	30.81	27.24
Payback (post-grant)	Years	2.77	11.11	13.09	12.43
Disc. Payback (pre-grant)	Years	n/a	n/a	n/a	n/a
Disc. Payback (post-grant)		2.85	n/a	48.88	n/a
Social payback (pre-grant)	Years	12.88	12.08	13.59	12.71

R = Real; N = Nominal

5.45. It is therefore proposed that included within the concession agreement would be a clause(s) that commits the Collecting Authority (Worthing Borough Council) to provide a local discount or rebate commensurate to the percentage of rates retained locally.

5.46. As has been highlighted above, doing so is not expected to have a reductive effect on rates collected but would be bringing about substantial local gains through the fundamental decarbonisation of not only the civic quarter heating but with far wider decarbonisation potential throughout Worthing, estimated to save over 3,000 tonnes of carbon dioxide and other greenhouse gases each year (see Economic Case section - *Option 3B: Sewer Source Heat Pump + town expansion*).

5.47. If such an option is not deemed possible then the Commercial Case has assessed that the variable tariff might need to be increased from Redacted (2020 prices). This should still represent overall value for money against the low carbon counter-factual for Worthing Borough Council buildings but will make the case for wider buildings to connect to the proposed network harder as the value for money case would be diminished. This will need to be explored further if approval is not possible for a local discount / rebate to included within the proposed concession agreement.

Financial Case: Conclusions

5.48. The award of a concession is not expected to create any direct financial commitments (revenue or capital) as the concession permits the service provider to supply heat but

establishes no direct cash flows from Worthing Borough Council as the concession awarder. However, it may create the possibility of contingent liabilities in the form of heat supplier of last resort. Proposals have been put forward to help mitigate this possibility.

5.49. Based on Adur and Worthing Council's published accounting policies it is possible that the award of a concession to a private sector investor would need to be brought onto Adur and Worthing's balance sheet. This will need to be explored in advance of final business case approval; however, it is expected that the accounting treatment would have little net impact but could possibly impact some financial ratios used by credit agencies which may need to be explored further particularly if non-prudential borrowing or other financing arrangements where independent credit ratings are used to set rates offered.

5.50. It has been assessed that heat offtake, under the provisional terms set out in the Commercial Case, would be expected to represent value for money against the low carbon counter-factual of in-building air source heat pumps when considered across all of the buildings under Worthing Borough Council's control.

5.51. Business rates were highlighted in the Commercial Case as having a material impact on returns. It is proposed that a local discount / rebate is included as part of the concession agreement in proportion to the current and future local retention rate in any given year.

Financial Case: Approvals Sought

Approval is sought:

5.52. to allow Worthing Borough Council officers, assisted by contracted consultants and HNDU, to co-ordinate and carry out a procurement of low carbon Energy Supply Agreements (ESA) for space heating and hot water supply for buildings controlled by Worthing Borough Council as well as those additional buildings included in the Commercial Case (section 4.8) to the extent that they consent to a combined procurement exercise. Approval for selecting the preferred ESA will be sought in the Final Business Case.

5.53. to include within the proposed concession agreement a clause providing assurance that a local discount / rebate will be offered to the service provider in line with the percentage of business rates local retention in any given fiscal year. The legal advice necessary to consider this is included within the approval sought for legal advice relating to the drafting of the concession agreement within the Commercial Case (see section 4.31).

6. Management Case

Introduction

6.1 The OBC's development, including the commissioning of all technical, financial and commercial advice, has been overseen by WBC's Worthing Civic Quarter Heat Network Project Board. This Board was established in the spring of 2020 and has met on a monthly basis together with key stakeholders since that time. In addition, a core project team, established at the same time, has met on a fortnightly basis. An Investor Day was also held in September 2020 to establish private sector appetite for involvement in the scheme.

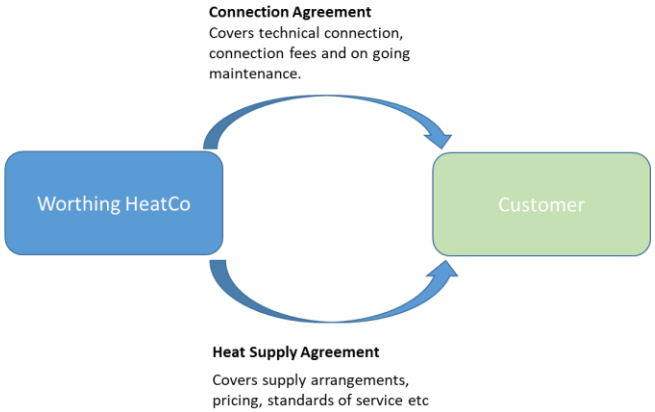
6.2 The governance structure for the commercialisation phase of the network will mirror those adopted for the development of the OBC.

6.3 The implementation of the network will continue to be overseen by a Project Board led by WBC's Executive Director Digital, Sustainability & Resources. This board will provide the project with strategic leadership. The project team, led by the Project Director and supported by a dedicated project manager, will oversee the development of the HNIP capital grant application, the documentation to allow the concession/development contract to be procured and further legal advice on the establishment of a special purpose vehicle (SPV) to be commissioned. The project manager supported by the Stakeholder Engagement consultant will also co-ordinate the stakeholder group to ensure key parties are kept informed of progress.

6.4 The Management Case demonstrates that the "preferred option" is capable of being delivered successfully, in accordance with recognised best practice. It is assumed for the purpose of this paper that WBC will enter into an output specification concessionaire arrangement with a private sector investment partner for the design, build and operation of the heat network. The HNIP application will be based on this assumption. Offtakers will be required to enter into a Connection and Heat Supply Agreement

Contractual Structure

- The proposed contracting structure shows Worthing HeatCo and the customer to entering into two agreements – one for the connection and one for the wholesale heat supply.
- Both contracts are open ended and will run until terminated.
- The connection agreement includes the process of connecting to the heat network.
- The Heat Supply agreement covers the long term supply of low carbon heat.



6.5 This section of the business case demonstrates that WBC will implement the proposal in accordance with a well-structured Project Management methodology and that there are robust arrangements in place for change management and contract management and the management and mitigation of risk.

6.6 It also explains WBC's arrangements for project monitoring during the implementation stage and contingency plans for risk management of the scheme.

Project Governance Arrangements

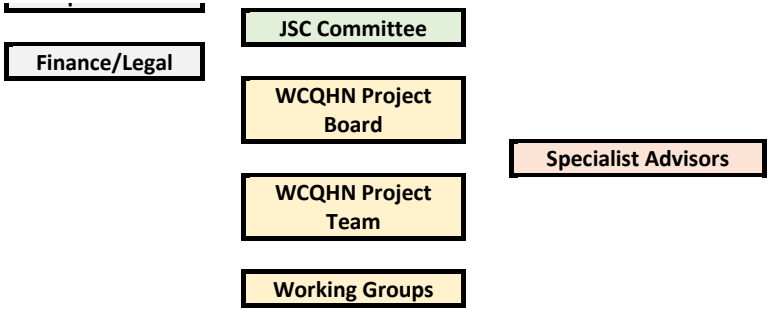
6.7 This section identifies the strategy, framework and outline plans required for successful delivery.

6.8 The diagram below outlines the governance arrangements that have been put in place in respect of WBC's major projects:

Governance management organogram

6.9 The Worthing HN Project is subject to a Project Board that meets on a monthly basis to provide oversight and direction and to review the project's progress. The meetings are minuted and shared with the council's internal management boards as appropriate, in particular: the Carbon Reduction Delivery Group; the Chief Executive's Climate Change Board; Strategic Finance Board and Corporate Leadership Team as appropriate. The Project Board may escalate information within and out with WBC as is deemed appropriate and necessary.

Project Governance



6.10 During all the stages of the project it is essential that it is led and supported by individuals/groups with the skills necessary to identify, manage and represent the needs and interests of a wide range of stakeholders and the ability to focus on delivery of the agreed objectives and benefits. The structure illustrated below is intended to ensure appropriate representation and engagement, whilst allowing streamlined and timely decision-making processes.

Project Roles and Responsibilities

6.11 Project Board - The project board is chaired by WBC's Executive Director for Digital, Sustainability and Resources and also attended by WBC's Project Director, who has overall responsibility for the planning, procurement and implementation of the project, and the council's Project Director, the Strategic Sustainability Manager and the councils Carbon Reduction Manager. It is the principal decision making body in relation to the project. The draft terms of reference for this particular project are as follows:

- To review and approve the proposed project organisation structure;
- To ratify the project programme and monitor performance against project milestones;

- To appoint a Project Director and a Project Manager to manage the project;
- To receive and approve the Project Initiation Document;
- To monitor the project risk register;
- To ratify the appointment of all legal, technical and financial advisors;
- To agree and implement the procurement processes for the capital scheme;
- To recommend to WBC a development partner/concessionaire for the project;
- To oversee the submission of any applications for external capital and/or revenue funding for the project;
- To take overall responsibility for the approval and submission of the Business Case;
- To receive and act on reports from the Project Director and external advisors;
- To take all necessary actions to facilitate the effective management and implementation of the project.

6.12 Project Board Membership

Name	Title	Organisation	Role
Paul Brewer	Executive Director, Digital, Sustainability & Resources	AWC	Project Director and Chair. Project oversight and internal governance reporting responsibility (Chair)
Francesca Iliffe	Strategic Sustainability Manager	AWC	Project Lead
Sarah Gobey	Chief Financial Officer	AWC	Finance
Cian Cronin	Head of Major Projects	AWC	Major Projects
Joanne Lee	Solicitor	AWC	Legal services
Dan Goodchild	Carbon Reduction Manager	AWC	Project Management
George Robinson	HNDU Head of Finance and Commercial	BEIS/HNDU	Investment & Finance
Michael Webb	WSEP Project Director	WSEP	Project Management
Andrew Wettern	Managing Director	1Energy	Specialist Advisor
Chris Randall	R&D Project Mngr	Southern Water	Heat Source Partner

Matt Turner/ Sam Shuttleworth	Director/Senior Engineer	AECOM	Technical Advisor

6.13 Core Project Team: The Core Project Team has operational responsibility for the day-to-day management of the project with the support of working groups. The draft terms of reference are as follows:

- To monitor progress against the project programme and refer any issues likely to impact on delivery of the project to the Project Board;
- To develop the brief and monitor the preliminary design of the project;
- To maintain and update the project risk register;
- To co-ordinate the work of any appointed external advisors;
- To co-ordinate the activities of and receive reports from the concessionaire and designated working groups;
- To manage the communication and stakeholder engagement processes;
- To oversee submission of any applications for external capital and/or revenue funding as appropriate;
- To monitor project costs and provide regular reports to the Project Board
- To implement the decisions of the Project Board

6.14 The core membership of the Project Team will include the Project Director, the Project Manager, senior staff from WBC and provider organisations and external advisors.

6.15 User groups will be established following the approval of the OBC to contribute to specific aspects of the development process.

6.16 The membership of the Core Project Team includes the following people

Name	Title	Role
Francesca Iliffe	Strategic Sustainability Manager	Project Lead
Dan Goodchild	Carbon Reduction Manager	Project Management
Sarah Gobey	Chief Financial Officer	Finance
Maija Konovalcika	Procurement Officer	Procurement

Name	Title	Role
Joanne Lee	Solicitor	Legal services
Michael Webb	Projects Director	Project Management
Andrew Wettern	1E – Managing Director	Stakeholder Engagement
Jeremy Bungey	1E - Director	Stakeholder Engagement
George Robinson	Beis, HNDU Officer	Investment & Finance
Matthew Turner/ Sam Shuttleworth	AECOM Director/Senior Engineer	Technical Support
Stewart McDonald	Recirc Director	Specialist Advisor
Chris Randall/ Elin Williamson	Southern Water	Heat Source Partner
TBA	WSCC	Highways

Key Individuals

6.17 During all the stages of the project it is essential that it is led and supported by individuals/groups with the skills necessary to identify, manage and represent the needs and interests of a wide range of stakeholders and the ability to focus on delivery of the agreed objectives and benefits. The structure illustrated below is intended to ensure appropriate representation and engagement, whilst allowing streamlined and timely decision-making processes.

6.18 Project Sponsor - The Project Sponsor is Executive Director of Digital and Resources.

6.19 Project Director - A Project Director has been appointed by the Project Board to oversee the project as a whole, carrying out key duties on behalf of the Board. Specific tasks are likely to include:

- Monitoring and managing the progress of the project;
- Acting as the point of contact for the partner organisations and external stakeholders, providing a direct link to the Project Board;
- Overseeing the appointment of external advisors;

6.20 The Project Lead for WBC is the Strategic Sustainability Manager, Adur & Worthing Councils.

6.21 Project Manager - A senior individual has been identified to take day-to-day responsibility for the project on behalf of the Project Director. The project manager's role involves implementing the agreed project management arrangements, overseeing delivery of the project in accordance with the agreed programme and keeping the Project Director appraised of all major issues and decisions required.

6.22 The Project Manager for WBC is WSEP's Projects Director

6.23 Stakeholders – senior offtaker estates personnel have been identified to support working groups. Monthly stakeholder progress update meetings have been held since 02 April 2020. A wider group of stakeholders and potential investors attended an investor day workshop on the 10 September 2020, which demonstrated a healthy appetite for private sector investment and involvement in the heat network.

Project Roles and Responsibilities

6.24. The table below identifies the anticipated milestones for the development of the new facility to be as follows:

Activity	Key Dates
Commence Public Consultations	July 2020
HNIP Application	April 2021
Approval for Full Business Case (FBC) by JSC	December 2021
Concessionaire Award – Preferred Bidder	December 2021
Concessionaire Award – Contract	March 2022
Start on Site	April 2022
Phase 1 Construction (Heat Available to CQ)	April 2023

External Advisors

6.25. The project is being progressed with WSEP providing LIFT Partner: Project Management services, 1Energy providing Stakeholder Engagement services and AECOM providing feasibility and techno-economic support in the preparation of this Business Case, Commercialisation and Procurement.

6.26. WBC are working closely with other specialist advisors, including:

Advisor	Role
HNDU, BEIS	Technical and Business Case advisors
Triple Point	Investment Managers
TBA	Legal Advisors
TBA	Procurement
TBA	Quantity Surveyors
TBA	CDM
Recirc	Specialist Technical Advisor

6.27. WBC will need to appoint other external advisors and specialist sub-consultants following approval of the business case in-order to undertake a number of roles associated with the management and delivery of the Heat Network Scheme.

6.28. WBC, with the support of WSEP, 1E and other specialist advisors, will undertake a robust selection process for the appointment of the concessionaire/Developer probably using the competitive Dialogue procurement process.

6.29. An Invitation to Tender (ITT) will be developed and issued to a maximum of four potential investor/developers via WBC's In-Tend platform, adhering to WBC's and national procurement policies

Change management

6.30. WBC appreciates that change needs to be carefully managed

6.31. A rigorous process will be developed to formalise the steps to be taken before any change is approved for implementation by the project board.

6.32. It is anticipated that all elements affecting change management and transition will be captured within the detailed Business Continuity Plan which will be developed following approval of the Full Business Case, including pre and post operation periods. A post operation review will be conducted and findings reported back to the Project Board.

Benefits Realisation

6.33. The benefit realisation process is critical in ensuring that a project delivers the key benefits and outputs anticipated by investment in the project and requires careful and close management, forming an integral part of the implementation process and then adopted into business as usual. The purpose of the benefits framework which has been developed is to:

- Provide description and detail around both the financial, qualitative and quantifiable benefits which WBC expects to achieve through the implementation of the investment into the WCQHN project.
- Demonstrates the impact of the changes to a wide range of stakeholders including:
  - Individual offtakers
  - Public
  - The environment
  - Other key stakeholders
- Provide a focus for stakeholders throughout the implementation process and beyond into business as usual.
- Provides specific and measurable indicators so that benefits can be measured and monitored.
- Provide an early warning to WBC if the project is not delivering the benefits as expected and allows enabling action to be taken.

Performance Indicators

6.34. WBC recognises that the benefits realisation plan will need to be linked to a series of specific and measurable performance indicators which will be linked to the project

6.35. Through regular monitoring of these indicators the realisation of the project's benefits can be demonstrated and WBC can test that performance across a range of areas is taking place as anticipated. In the event that a benefit isn't being realised as planned, the monitoring process would flag this and allow the project to plan interventions to address any potential issues.

6.36. WBC will develop performance indicators which will have been developed with input from key stakeholders. The key principles applied include:

- Meaningful and transparent – The indicators should be easily understood, enabling WBC to demonstrate that the anticipated benefits are being realised;
- Pragmatic in number – The indicator set should be sufficiently long to provide coverage, but not so long that monitoring does not take place due to the administrative burden;
- Focus on Offtakers – The primary focus should be on Offtaker outcomes and experience;
- Minimise additional burden – Performance indicators should be based on existing measures and data collection systems, and should not create an additional data burden;
- Embed in business as usual – Measurement of the performance indicators should become part of the 'business as usual' arrangements.

Risk Management

6.37. WBC understands the importance of risk management and has robust systems in place. A risk register has been developed and will be attached to the finalised Business Plan.

6.38. Once the proposed heat network facility is completed and during the operationalisation phase a dedicated commissioning team will oversee the operational safety, security and risks in line with WBC's Risk Management Policy and Strategy.

6.39. In terms of the project specific risk, management is an essential part of the development process. Risk should be managed proactively through a process of identification, assessment and mitigation, risk management arrangements for the heat network project are consistent with WBC's overall risk management methodology.

6.40. Risk identification usually consists of three parts; understanding the base project, reviewing likely sources of risk and identifying potential risks/opportunities.

6.41. A risk identification exercise has been carried out which identifies the following principal sources of risk for the project:

- Preferred technical solution proves inadequate
- Delay in developing the infrastructure due to failure to receive funding/approval.
- Delays to the project due to objections through public consultation.
- Project unable to be financed due to borrowing constraints.
- Failure to secure planning permission.
- Affordability of project.
- Lack of time for adequate consultation with Offtakers, stakeholders and wider community.
- Procurement risks

- Delays in construction.
- Health and Safety risks may be incurred during construction; deep shaft construction and connection at depth into a major sewer, construction of large diameter underground pipework through a busy town centre, Covid 19 impact.
- Insufficient capacity to meet the demands of development of the Full Business Case.
- Failure to meet the environmental performance targets as agreed with Offtakers.
- Lack of communication with stakeholders.
- Delays in agreeing and signing off tariffs and connection charges.

Post Project Evaluation (PPE)

6.42. PPE is essentially a learning tool to ensure that the sponsoring organisation and other stakeholders apply this knowledge to future projects and that they can test the effectiveness of the policies and procedures used in the procurement.

6.43. WBC is committed to ensuring that a thorough and robust post project evaluation is undertaken at key stages in the process to ensure that positive lessons are learnt. The evaluation will be led by the Project Director and will include:

- Plan the scope of the PPE exercise;
- Monitor progress and evaluate the project outputs;
- Evaluate project and benefits realisation;

6.44. The following key evaluation stages will be adopted:

- Stage 1 - Project Procurement: Business Case approval to Financial Close
- Stage 2 - Implementation: Financial Close to Practical Completion
- Stage 3 - Initial: Operational Commissioning to first 6 months of operation (Project Evaluation Reviews PERs)
- Stage 4 - Follow-Up: 6 months to first 2 years of operational phase (Post Implementation Review PIR)

Engagement and Consultation: Communication Plan

6.45. WBC understands that the success of the project will be enhanced by active engagement with key stakeholders and the public in planning and designing the new facility. WBC have and will use a number of forums to share and have full engagement with stakeholders, staff, the community, third sector organisations together with a number of organisations with whom WBC has an existing relationship. See Strategic Case.

6.46. A communication strategy has been developed for the project which informs educates and influences a range of stakeholders to provide them with a detailed understanding of the project how it will deliver benefits and act as an enabler for delivering the councils carbon reduction goals.

6.47. The communication and engagement plan is a living document and will be developed over the course of the project by WBC's communications team in collaboration with the Project Team, Project Board and other stakeholders, laying the groundwork for future plans that will include specific arrangements for consultation and engagement with stakeholders as more information becomes available with regard to timescales, funding, approvals, etc.

6.48. The key objectives of the communication strategy are:

- Explain the case for change to all stakeholders to promote support and understanding.
- Gain support from staff through effective engagement via staff involvement and communications.
- Ensure that the message to all partners and stakeholders is consistent and provide sufficient explanation of changes to services.
- The use of public consultation to gain further understanding
- Promote service improvements delivered through the project, focusing on quality, productivity and efficiency based on evidence
- Ensure that stakeholders are fully engaged in the process from the outset.

6.49. The main themes which will be delivered will be around:

- Innovation to address the Climate Emergency
- Improved quality of the environment across Worthing Town Centre
- Reduction in Carbon emissions
- High quality facilities which will provide sustainable secure supply of heat.
- Represents value for money
- Strategic, collaborative project to decarbonise heat using state of art technology
- Reuse of waste heat, use of renewable heat source

6.50. The strategy will ensure that a number of key communication principles will be applied across the project consistently, these include :

- Consistency of approach around the message both internal and externally.
- Internal and external communications should align with WBC messages focused on improved quality and standards.
- All communications to be timely, consistent and clearly understood.
- Use of a wide range of communication channels.
- Wide range of engagement.

Engagement and Consultation: Stakeholder Engagement

6.51. A stakeholder mapping exercise has taken place. There are three levels of engagement which include awareness, involvement and commitment context of the engagement is defined as:

Awareness – to take all stakeholders to a general level of understanding where they feel informed, understand the project, see the need for change and are reassured about the process of change.

- What is the Heat Network Project?
- What difference will it make?
- Why do we need new buildings to be heated in new ways?
- Who will be affected and how?
- What are the timescales?
- What are the benefits?
- When will it happen?

Involvement – to take those affected by the project beyond understanding, to support and active participation, where they feel confident about the project, see its benefits, accept the change, understand the process and are clear about their role in the process.

- All of the above, plus
- What are the benefits for me/us?
- What are the risks?
- How can we help?

Commitment – to take key stakeholders to a level where they give full commitment to enter into a contractual arrangement to take heat from the network and support the process.

All of the above, plus

- Why this is a priority?
- Why it should be supported?
- What is the impact of a) support b) non-support

Engagement and Consultation: Consultation Process

6.52. Key drivers for WBC are:

6.53. **Carbon Reduction**:

6.53.1. Adur & Worthing Councils (AWC) has recently declared a climate emergency and committed to become carbon neutral by 2030. A 10 year programme of decarbonisation will commence 2020-30 on adoption of the Carbon Reduction Plan produced by AECOM, December 2019.
6.53.2. Funding has been approved for investment in decarbonisation. Funding streams are being explored.
6.53.3. Decarbonisation is also a driver for key stakeholders.
6.53.4. Exploration of a heat network for the Worthing Civic Quarter is a commitment in Platforms for Our Places (AWC's Corporate Plan), and SustainableAW (AWC's Sustainability Framework)

6.54. **Public Sector Cost Reduction:**
6.54.1. Current AWC energy bills are circa £1m/yr. There is a need to futureproof spend on energy against future price rises. In light of the reduction in revenue grants from central government, reducing expenditure on energy on the councils' own sites is also a priority.
6.54.2. The councils are also eager to explore opportunities for capital investment in order to generate income

6.55. **Local Economic Regeneration:** A heat network for the WCQ site could contribute to the viability of planned new development in Worthing.

6.56. **Effective Building and Facilities Management:** Boilers at Portland House and Worthing Town Hall are at their end of life and need replacement. Finance has been allocated towards this in the Capital Strategy.

6.57. **Adding value/bring in value to other programmes**
6.57.1. The WCQHN has potential to add value to the Worthing Museum and Worthing Library Refurbishments.
6.57.2. A WCQHN is a site in public ownership that could demonstrate good practice, replicable nationally. It is referred to in the LEP Energy Strategy: South2East.

6.58. As demonstrated above; WBC engaged with a wide range of stakeholders including: the local authority, councillors, MP, residents living close to the proposed CQ development, community groups, businesses, staff, MoJ, WTAM, EA, Worthing hospital, Southern Water, media and the wider public

6.59. The following table below sets out the process leading up to and during the consultation events:

MONTH	ACTION	OUTCOME
2020	WBC sponsored Climate Conference (Zero 2030) in collaboration with community organisations Transition Town Worthing and Worthing Climate Action Network	Public informed and issues debated
2020	WBC Online Climate Assembly	Public informed and issues debated
May'20 - Present	Monthly Stakeholder Progress Mtgs	HN Progress update, MoU established, LOI/HOT's in negotiation
September'20	Investor Day	High level of private sector interest in the HN development
November'20 - Present	Stakeholder Engagement consultants appointed	Good level of 1-2-1 discussions ongoing with stakeholders and potential offtakers
December'20 & ongoing	Southern Water CEO mtg	Agreed in principle to the use of a large sewer as the heat source and to establish a working group to aid delivery and negotiate terms

Contingency Plans and Business Continuity

6.60. WBC appreciates that once the infrastructure is constructed the transition from the use of old established and independent ways of heating property will require detailed planning to ensure business continuity. A transition plan will be developed which will set out the activities that need to take place, timescales and who will be responsible for the implementation.

6.61. On approval of this Full Business Case WBC will develop a work stream which will be dedicated to ensuring that business continuity is maintained and contingency plans are in place during the move from old to new infrastructure. This work stream will need to include representatives form a wide range of stakeholders and other distinct disciplines including staff, administrators, IM&T, estates, fire, Health and Safety and security. A detailed business continuity plan will be developed and this will need to consider a range of issues including:

- Offtakers
- Staffing
- Equipment
- Communication
- Estates
- Facilities Management
- Service Level Agreements
- Utilities
- Tariffs
- Security
- Risks;
- Post Evaluation.

Appendix 1

Worthing Heat Network
Consultation Strategy

Need for Consultation

There is a need for engagement with a wide range of parties, for different purposes, in the lead up to a planning application for the new Worthing Heat Network.

How a heat network can help facilitate the council's aim of being carbon neutral by 2030, has to be explained; and in particular, the novel approach of using a large local sewer as the heat source for this network.

Range of Consultations Needed

Consultations in relation to the project should include the following (not exhaustive):

Detailed discussions with Planning, Highways, Urban Design, EA, Environmental Health, Tree Officers, Private Developers (Union Place), Offtakers etc. to secure an 'in principle' agreement for the proposals and resolve any issues before an application is made.

Consultation with Councillors and Neighbourhood/Residential and Commercial/Retail Groups – to share proposals and seek local views.

Consultation with local people regarding the proposals - giving an opportunity to show the designs before a planning application is made and take account of any issues raised in the final proposals.

Consultations with staff in relation to the new building heating proposals – this will be led by WBC.

Consultations with staff in relation to the new maintenance and billing regime – this will be led by WBC.

Established Stakeholder and potential offtaker meetings to continue.

Planning Application Consultation Strategy

	Scope/ Action	Timing	Key outcomes sought
Pre Application Advice	The Council offer a pre-application advice service. The team would provide a set of plans/ sketches, etc. as well as the parameters of the proposals (pipe routes, energy centre, scheme overview, etc.) and discuss these at a meeting with all the relevant officers. Once initial feedback is received in relation to the various relevant issues, members of the project can liaise directly with WBC Officers as necessary. We would recommend that we submit a request for pre-app once designs are advanced enough to present. But needs to be at least 2-3 months before the application is due to be submitted (to allow for scope of the application and technical assessments to be agreed and for resolution of any issues arising).	TBA	'In principle' approval of the scheme from WBC Planning, resolution of issues prior to submission (e.g. traffic and access, impact on listed building, trees etc.
Statutory Consultees	We recommend pre-application discussion of the proposals with them.	TBA	'In principle' approval of the scheme from Highways, Southern Water and others.
Councillors/ Residents Association	Given the sensitivity of the area – due to the traffic impact – and the sensitivity of proposals for environmental considerations, we recommend meeting with Councillors, Residents Associations, impacted Commercial and Retail parties and others to explain the	TBA	Allaying fears and listening to local views.

	principles of the scheme and try to prevent misinformation and rumours.		
Local People	We would recommend that the team takes the opportunity to show the designs before a planning application is made in order to share the proposals with local people and answer their questions, and also to take on board any issues that they may raise. It should follow on from the meeting with Councillors/ Residents Assoc. It needs to take place with enough time to consider their feedback which may have implications for the proposals.	TBA	Allow the design team to take account of and respond to any issues raised by local people in the final proposals. Share information about the scheme with local people and allay fears (trees/ traffic/ offtakers, etc.)

Public Engagement Format

Format: Drop in session/s with display boards staffed by the project team to answer questions. Signing in sheet and feedback forms to be available.

Timings: Held over one or two days with time slots to suit different people (e.g. late afternoon /early evening).

Location: Ideally within the Town Hall – in an easily accessible location with space for display and staff/ visitors to talk.

Advertisement: Leaflet drop to local residents, via Residents Association; Local media; Local businesses

Display: 6-8 display boards to include:

Existing site plans

Photographs of the site and surroundings

Proposed site plan

Context Plan

Traffic generation and parking information.

Information on services to be delivered from the scheme/ changes from existing.

Programme

Website: Utilise WBC's Platforms for our Places: Going Further; and, SustainableAW to inform and share information about the proposals and specifically the engagement drop in sessions. At the time of the event, or afterwards, it would be beneficial to have the display accessible on the website for anyone who can't attend the drop in.
Feedback: Completed feedback forms and accounts of verbal feedback will be collated and reported to the team following the event. The team will then discuss where issues raised need to influence proposals.

Consultation Report to be prepared for the planning application.

Appendix 2: The 28 proposed Connections to the Worthing Heat Network

Owner	Owner
West Sussex Health & Social Care	WSCC?
Davison C of E Secondary School for Girls - WALLACE BUILDING	WSCC + Diocese
Davison C of E Secondary School for Girls - MAIN BUILDING	WSCC + Diocese
Worthing Library / Hub	WSCC
Lyndhurst Infant School, and Children & Family Centre	WSCC
Davison Leisure Centre	WSCC
Union Place - Hotel	WBC + LCR
Union Place - Phae 1 Comm	WBC + LCR
Union Place - Phase I Resi	WBC + LCR
Union Place - Phase 2 Resi	WBC + LCR
Union Place - Phae 2 Comm	WBC + LCR
Town Hall	WBC
Assembly Hall	WBC
Portland House	WBC
Museum & Art Gallery	WBC
Colonnade House	WBC
WICC	WBC
Pavilion Theatre	WBC
Connaught Theatre	WBC
Splashpoint Leisure Centre	WBC
Stagecoach	Private
BG Site: St William	Private
Grafton	Private
Teville Gate	Private
Sussex Police West Downs Division	Police
Worthing Hospital	NHS
Worthing Hospital - HOMEFIELD	NHS
Law Courts	MoJ

Appendix 3 - Indicative costs for annualised heat supply costs and capital connection costs for council owned sites.

The indicative costs shown in this appendice set out a comparison between three options for heat provision and have been developed through modelling for the Worthing Feasibility Study and the draft Outline Business Case. They are set out in relation to two elements: firstly the annualised cost of heat, and secondly the capital cost. The options are:

A. continuing to heat buildings using gas boilers, a do nothing' option;
B. providing heat through connection to the Worthing Heat Network; and
C. providing heat through an installed air source heat pump in each building.

The option to 'do nothing' or continue with heat via gas boilers is not a realistic option due to commitments from the councils to work towards becoming carbon neutral by 2030

The information illustrates that for every building:

- the cost of decarbonising heat through an individual heat pump solution is more expensive
- the cost of decarbonising heat through connecting to a heat supply form the heat network is cheaper than the equivalent heat decarbonisation option.

Indicative Annualised cost of heating by WBC building

The annualised cost of heating by building is shown in the table and graph below. The following table and graph show the same information in different formats.

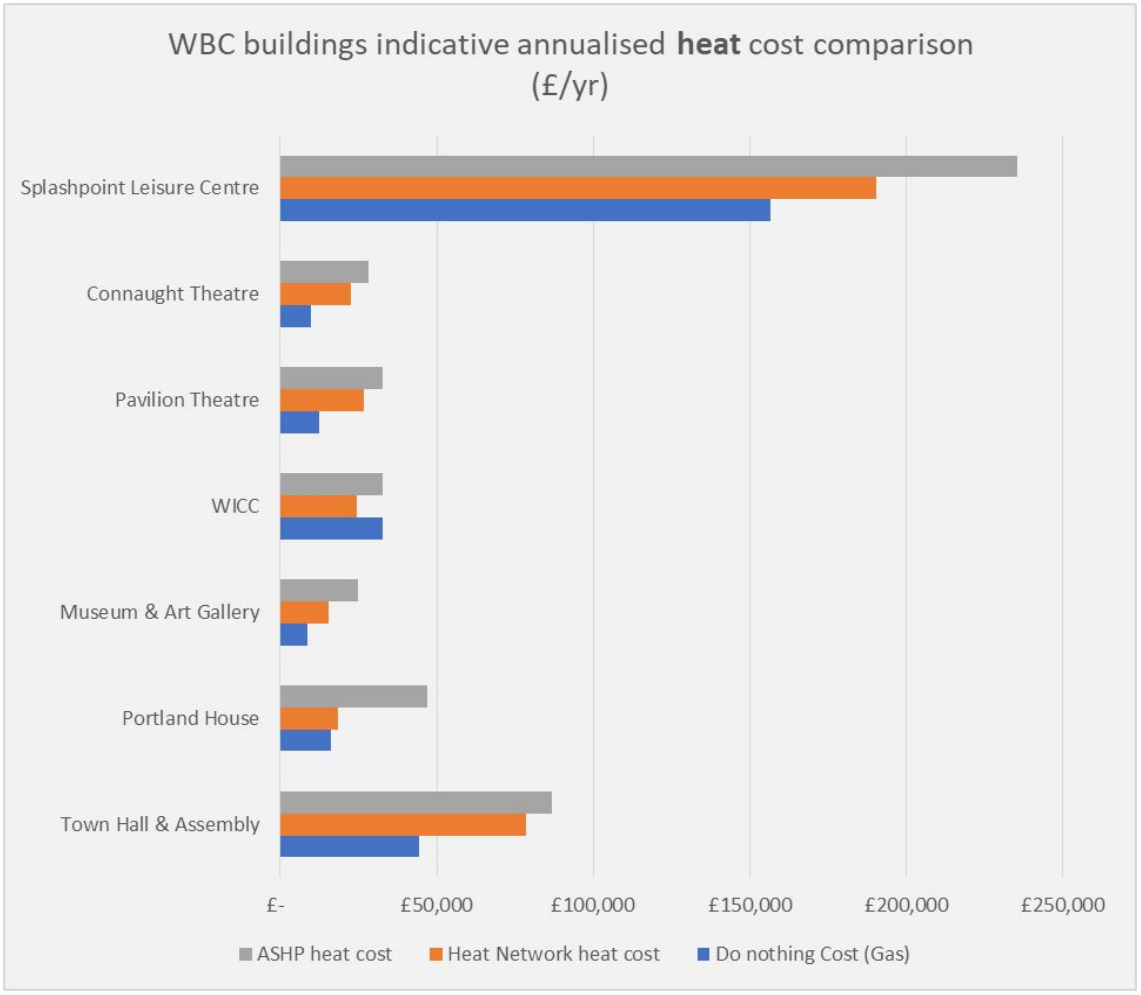
Annualised costs include usage costs, maintenance and an allowance for asset replacement.
The costs shown in the table and graph below are updated based on recent actual energy usage data in relation to those shown in the Draft OBC, which will also be updated with this data prior to finalisation

- This analysis is based on data provided by Aecom for the 'do nothing scenario' based on retaining gas heating as set out in the Worthing Civic Quarter Feasibility Study.
- The Heat Network cost is based on a tariff of £redacted/KWH and £redacted/KW (installed capacity) per year.
- The ASHP column shows the expected cost based on the levelized cost of heat of operating an individual building level ASHP
- The total annualised additional cost of switching to the heating from the Worthing Heat Network over gas for all the buildings referred to is £95k.
- The impact (increase over gas) of using a individual heat pump solution for all the buildings referred to would be £206k
- Energy efficiency measures installed in buildings to reduce heat losses could reduce the heat required for each building. For example the measures planned for the Assembly Hall, Town Hall and Portland House are estimated to reduce heat demand by 20%.
- Business Rate Retention for the WHN could help to offset the increased costs over the gas option for the heat supply through the HN, as retention is currently permitted for renewable energy schemes. (Subject to any changes to Regulations around Business Rate Retention).

Table: Indicative Annualised cost of heating by WBC building

Annualised heating costs	Do Nothing Gas Heating	Heat Network Heating cost	*Uplift cost v gas*	ASHP Heating cost
Town Hall & Assembly	£ 44,420	£ 78,380	£ *33,960*	£ 86,814
Portland House	£ 16,017	£ 18,545	£ *2,528*	£ 46,992
Museum & Art Gallery	£ 8,499	£ 15,598	£ *7,099*	£ 24,656
WICC	£ 32,869	£ 24,331	-£ *8,538*	£ 32,876
Pavilion Theatre	£ 12,294	£ 26,570	£ *14,277*	£ 32,805
Connaught Theatre	£ 9,872	£ 22,694	£ *12,822*	£ 28,031
Splashpoint Leisure Centre	£ 156,806	£ 190,419	£ *33,613*	£ 235,454
	£ 280,776	**£ 376,537**	**£ *95,761***	**£ 487,628**

Graph: Indicative Annualised cost of heating by WBC building



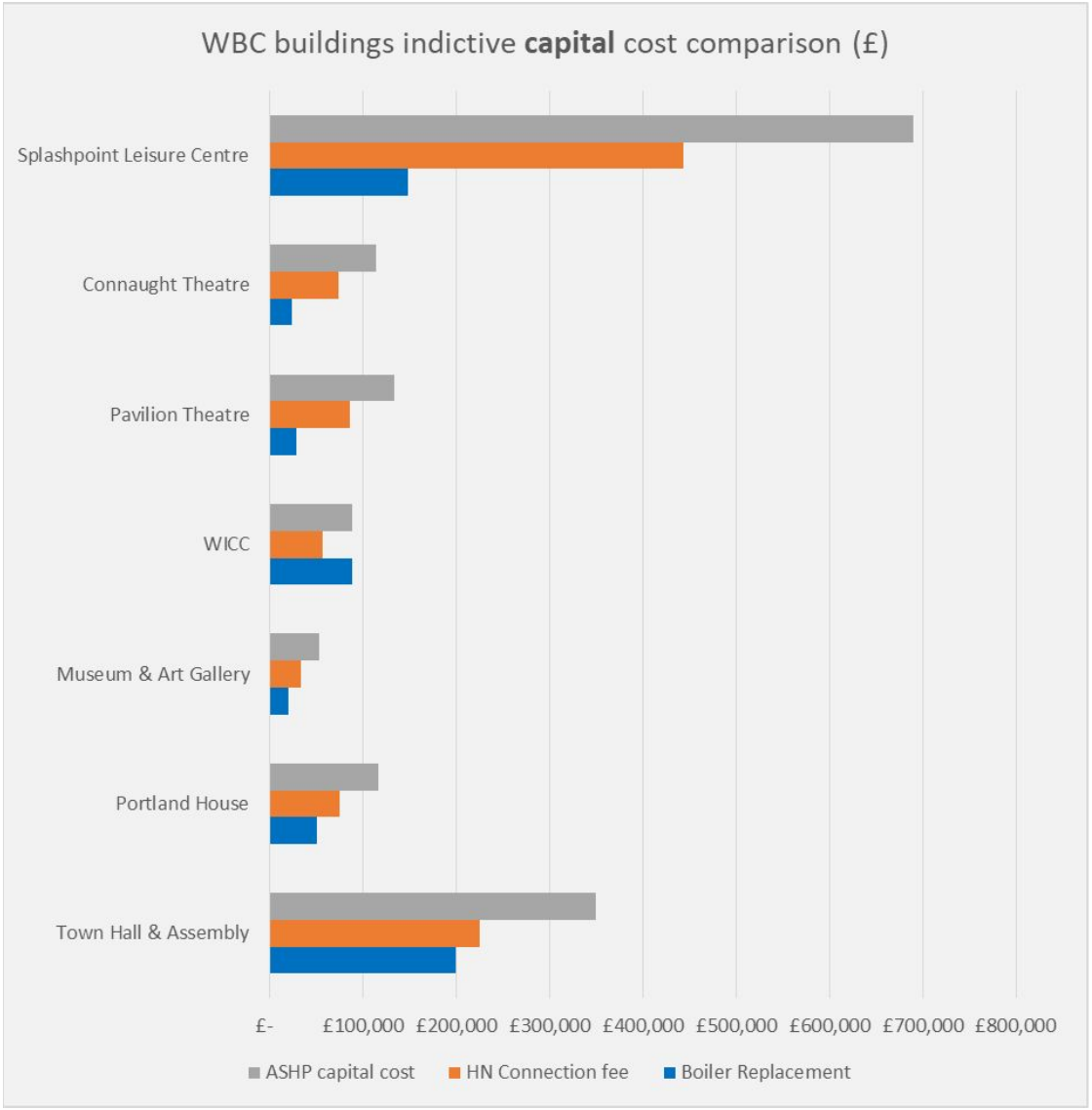
Indicative Capital cost impact switching to district heating by WBC building

- The table and graph below show the capital cost of connecting to the district heating network compared to replacing the gas infrastructure and a building level individual ASHP.
- This is based on data provided by Aecom.
- The connection fee is currently set at £redacted/KW based on the required substation size.
- The connection to the heat network will require an investment of £936k based on the connection fee above. This is £433k more than the cost of replacing the gas boilers. Although £552k less than the estimated cost of individual building solutions.
- The Gas Boiler replacement option is a short term option only and is not compatible with carbon reduction commitments.
- Funding such as Public Sector Decarbonisation Grant could be available to reduce the costs of connection fees.

Table: Indicative Capital cost impact switching to district heating by WBC building

Capital Costs	Gas Boiler Replacement	HN Connect Fee	*Uplift cost v gas*	ASHP capital cost
Town Hall Incl Assembly hall	£ 200,000	£ 225,000	£ *25,000*	£ 350,000
Portland House	£ 50,850	£ 75,150	£ *24,300*	£ 116,900
Museum & Art Gallery	£ 20,160	£ 34,200	£ *14,040*	£ 53,200
WICC	£ 88,200	£ 56,700	-£ *31,500*	£ 88,200
Pavilion Theatre	£ 28,861	£ 85,950	£ *57,089*	£ 133,700
Connaught Theatre	£ 24,490	£ 73,350	£ *48,860*	£ 114,100
Splashpoint Leisure Centre	£ 147,801	£ 443,250	£ *295,449*	£ 689,500
	£ 560,362	**£ 993,600**	**£ *433,238***	**£ 1,545,600**

Graph: Indicative Capital cost impact switching to district heating by WBC building



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ADUR & WORTHING
COUNCILS

Joint Strategic Committee
2 March 2021
Agenda Item 8

Key Decision Yes

Ward(s) Affected: All Adur Wards except Marine and Buckingham

Adur District Council - Housing Revenue Account (HRA) Capital Programme 2021-2023

Report by the Director for Communities

Executive Summary

1. Purpose

1.1. This report informs members of the capital investment programme for two years combined - 2021/22 and 2022/23. It contains information about the planned investment in the housing stock which is owned by Adur District Council and managed under the name of Adur Homes. Approval is sought for the release of the budget in compliance with Financial Regulations.

1.2. The new investment allocated in the Housing Revenue Account for 2021/22 is £5,600,000 and for 2022/23 is £5,600,000.

2. Recommendations

2.1. The Joint Strategic Committee is recommended to approve the revised Housing Capital Investment Programme for 2021/22 and 2022/23 and to release the budgets for 2021/22 and 2022/23.

3. Context

3.1. Despite the impact of the COVID-19 pandemic, the Adur District Council is committed to continue to invest in its social housing stock, referred to as Adur Homes.

3.2. The investment in Adur Homes stock, which consists of 2,539 tenanted, 529 leasehold dwellings, is funded through the Housing revenue account (HRA).

3.3. As part of the plans to ensure a continuous regime of planned works and cycle maintenance for the stock, an asset management strategy will be in place by the summer of 2022. This strategy, which will include a plan, will form the basis for future investment in Adur Homes stock. The strategy will be aligned with the HRA Business plan and the Council's affordable homes ambition.

3.4. As part of the Adur Homes Transformation Programme, adequate structures will be put in place to achieve the delivery of the strategy and manage planned works and cyclical maintenance.

3.5. This report therefore, describes the plans for the next two years only. and priorities for the repair and refurbishment of the stock. The Council plans to invest £5,600,000 each year 2021/22 and 2022/23.

3.6. An informed investment programme will enable officers to consider the most appropriate methodology for procurement and work packages during this period.

4. Funds to be carried forward from 2020/21 Budget

4.1. It is proposed to carry forward to 2021/22 funds for the projects that are ongoing or are at an advanced stage of planning. The table below shows the funds that the Council has committed to each scheme. The final amounts to be carried forward will be confirmed at the year end as part of the Capital 2020/21 Outturn Report to the Joint Strategic Committee.

Project	**Total 2020/21 and 2021/22 Budgets**	**Project Status**
Rocks Close External Works	£1,111,000.00	The works have been tendered but due to Covid-19 restrictions the contract was not awarded and will need to be retendered.
Locks Court External Works	£844,000.00	The works have been tendered but due to Covid-19 restrictions the contract was not awarded and will need to be retendered.
Bushby Court	£640,000.00	Contract has been awarded.

Works		Construction works have started on site with completion for Bushby Court anticipated Spring 2021, and Beachcroft Court December 2021.
Beachcroft Court Works	£876,000	Contract has been awarded. Construction works have started on site with completion for Bushby Court anticipated Spring 2021, and Beachcroft Court December 2021.
Fire Door Replacements	£924,500.00	Contract awarded. Budget reprofiled in line with anticipated expenditure.
Fire Safety Improvements - Sheltered	£257,400.00	The works were originally delayed by Covid 19 restrictions and the contract was eventually awarded and works commenced. However, the contract has had to be terminated due to failure to comply with CDM regulations 2015. Budget reprofiled to 2021/22 in line with anticipated expenditure.
Fire Safety General Needs Works	£716,150.00	Contract award report submitted to the Executive Member. Budget reprofiled in line with anticipated expenditure.

5. **Breakdown of the Capital Investment Programme for 2021/22 and 2022/23**

5.1. As experienced this year, the Council anticipates that the uncertainty created by the COVID-19 pandemic may impact delivery of projects for 2021/22 and possible 2022/23. Also, it is still too early to understand the impact of the exit from the European Union on contractors supplies especially in 2021/22. Therefore, this plan is designed to be flexible such that works can be either brought forward or delayed within both financial years depending on the prevailing circumstances.

5.2. <u>Adaptations for Tenants with Disabilities</u>

Undertaking adaptations to a property where the existing tenant (or member of the tenant's household) has a disability and requires

adaptation works to the property in order for them to remain in the home. These are made via a recommendation from West Sussex County Council through the Occupational Therapy service.

2021/22 Budget:	£250,000
2022/23 budget:	£250,000

5.3. External and Structural Safety Works

This includes external works and structural works to address health and safety issues. This work potentially includes elements such as

- Balcony railings replacement
- Concrete works
- Repair or replacement to gully grills
- Roofs recovering and replacement
- Door entry systems

Some of the priority buildings are identified below with work expected to commence in 2021/22:

- Arundel Court
- Broadway Court
- Kingston Court
- Osbourne Court
- Penstone Court
- Warren Court
- Grange Court

2021/22 budget:	£430,000
2022/23 budget:	£1,371,000

5.4. Fire Safety Works

There is a continual programme of Fire Risk Assessments (FRA) to the communal areas in blocks and schemes which is resulting in an action plan to reduce and mitigate risk. The works from these action plan have been prioritised in accordance with the risks identified. Some of the longer term solutions are more complex. Therefore, after immediate mitigation has been put in place to ensure resident safety, the complex long term solutions will run over a number of years. Fire Safety works include fire safety remedial works, fire alarm installations and upgrades to sheltered housing and works to mitigate fire safety risks from inner rooms.

2021/22 budget:	£3,000,000
2022/23 budget:	£2,300,000

5.5. Electrical inspection condition report (EICR) remedial works

The Council is currently on programme to ensure it assesses a fifth of its stock every year. Remedial works will be carried out on any risk identified to improve the safety of the building and bring it into compliance with electrical safety regulations. This budget will meet the second and third years of that programme. It is expected that all of the Councils stock will be in compliance at the end of the fifth year of the programme. These assessments include all electrical wiring and installations such as plug sockets, fuse boxes and light fittings. Electrical Safety Standards now require that landlords inspected and tested every fixed electrical installation at least every five years. Therefore, it is intended that testing a fifth of the stock annually will be a rolling programme to ensure continuous compliance with electrical safety standards.

2021/22 budget:	£481,000
2022/23 budget:	£690,000

5.6. Heating and Energy Efficiency

Adur District Council has been awarded £1.3m of capital grant funding towards Adur Homes Schemes under the Public Sector Decarbonisation Scheme (PSDS) to deliver carbon reduction works in Shadwells Court and Marsh House. Due to the funding criteria and larger scope of works, the Adur District Council bid required approximately £367,950 of match funding in order to secure over £1.3m of PSDS grant.

The works need to be completed in 2021/22. These involve the installation of heat pumps to replace or complement gas boilers. Heat pumps use electricity to extract heat from either air (air source heat pumps, ASHP) or the ground (ground source heat pumps, GSHP) and emit significantly less carbon emissions and air pollution than fossil-fuel fired alternatives.

The Council will continue to seek external funding for energy efficient and decarbonisation works.

There is also an annual need to replace boilers identified as part of the gas safety inspection and testing contract or where boilers fail during the year.

2021/22 budget:	£1,880,000
2022/23 budget:	£130,000

5.7. Responsive Capital Works and Works to Void Properties

This budget is to be used to undertake individual works which are not in a current programme and works to vacant voids properties before they can be re-let. In some of these cases, the condition of the vacant property is so poor that it requires additional investment.

2021/22 budget: £200,000
2022/23 budget: £200,000

5.8. Asbestos Surveys and mitigation works

To continue the ongoing need to assess and deal with asbestos

2021/22 budget: £75,000
2022/23 budget: £75,000

5.9. Stock Condition Surveys

These are essential to enable informed planning for future investment.

2021/22 budget: £40,000
2022/23 budget: £40,000

5.10. Professional and Consultancy Fees (Works)

This budget funds the costs of the technical services staff undertaking the HRA projects and the costs of consultancy services.

2021/22 budget: £544,000
2022/23 budget: £544,000

5.11. The table below shows a breakdown of spend above

Planned Works	**2021/22**	**2022/23**
Disability adaptions	£250,000.00	£250,000.00
Fire Safety	£3,000,000.00	£2,300,000.00
External and Structural Safety Works	£430,000.00	£1,371,000.00
Electrical Safety Works	£481,000.00	£690,000.00
Heating and Energy Efficiency	£1,880,000.00	£130,000.00
Capitalised Maintenance	£200,000.00	£200,000.00
Asbestos Surveys and Mitigation	£75,000.00	£75,000.00
Professional and Consultancy Fees (Works)	£544,000.00	£544,000.00
Stock condition surveys	£40,000.00	£40,000.00
TOTAL	**£6,900,000.00**	**£5,600,000.00**

6. Engagement and Communications

6.1. This report was presented to the Adur Homes Management Board on 13 February 2021. Comments from the board has been reflected in the report

7. Financial Implications

7.1. The Capital Strategy approved by the Joint Strategic Committee 7th July 2020 approved annual resources of £5.6m to fund the Housing Capital Investment Programme 2021/22 and 2022/23 as set out in the Capital Strategy 2021/24 and are as follows

Major Repairs Reserve:	£3,900,000
Prudential Borrowing:	£1,600,000
Capital Receipts:	£100,000
Council Funding 2021/22 and 2022/23:	**£5,600,000**
External Funding 2021/22	
Public Sector Decarbonisation Funding:	£1,300,000
Total Investment 2021/22:	**£6,900,000**

7.2. The budget allocations set out in paragraphs 5.1 - 5.10 can be funded within the annual allocations and external funding secured for 2021/22 and 2022/23.

8. Legal Implications

8.1. Section 9(1) Housing Act 1985 provides that the Local Authority may provide housing accommodation by erecting houses, or converting buildings into houses, on land acquired by them, or by acquiring houses. Section 9(2) provides that the Council may alter, enlarge, repair or improve such a house. This would give the Council the power to maintain and repair Adur Homes properties.

8.2. Section 111 Local Government Act 1972 provides that the Council shall have the power to do anything (whether or not involving expenditure, borrowing, or lending of money or the acquisition or disposal of any property or right) which is calculated to facilitate, or is conducive or incidental to the discharge of any of their functions.

8.3. s1 Local Government (Contracts) Act 1997 confers power on the local authority to enter into a contract for the provision of making available of assets or services for the purposes of, or in connection with, the discharge of the function by the local authority

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Sustainability & Risk Assessment

1. Economic

These programmes and projects demonstrate economic investment into assets owned by Adur District Council

2. Social

2.1 Social Value

The work to the housing stock outlined in the report will have a beneficial impact on the health and wellbeing of the residents many of whom are more disadvantaged in terms of health and income than other residents.

2.2 Equality Issues

2.2.1 The programme contains an element for adapting properties for tenants with a disability.

2.2.2 Consultation with residents as part of all other programmes will identify where any reasonable adjustments need to be made.

2.3 Community Safety Issues (Section 17)

2.3.1 Aspects of several programmes described in the report will have a positive impact on community safety for example the repair and replacement of door entry systems to blocks of flats.

2.4 Human Rights Issues

2.4.1 Matter considered and no specific issues identified.

3. Environmental

There are aspects of the programmes described in the report which will improve thermal efficiency and reduce fuel poverty for example replacement windows and replacement flat roofs.

4. Governance

The progress is regularly monitored via the Capital Working Group. Progress is reported to members 4 times a year.

The procurement of works will comply with the procurement regulations and contract standing orders.

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