



Supplementary Planning Document

Bishops Stortford Climate Group

NPPF & EH District Plan

- “the planning system should support the transition to a low carbon future in a changing climate”
- “shape places in ways that ***contribute to radical reductions in greenhouse gases***” (Paragraph 48);

EHDP Policy CC2 Climate Change Mitigation

All new developments should demonstrate how carbon dioxide emissions will be minimised across the development site, taking account of all levels of the energy hierarchy. Achieving standards above and beyond the requirements of Building Regulations is encouraged.

Carbon reduction should be met on-site unless it can be demonstrated that this is not feasible or viable. In such cases effective offsetting measures to reduce on-site carbon emissions will be accepted as allowable solutions.

The energy embodied in construction materials should be reduced through re-use and recycling, where possible, of existing materials and the use of sustainable materials and local sourcing.



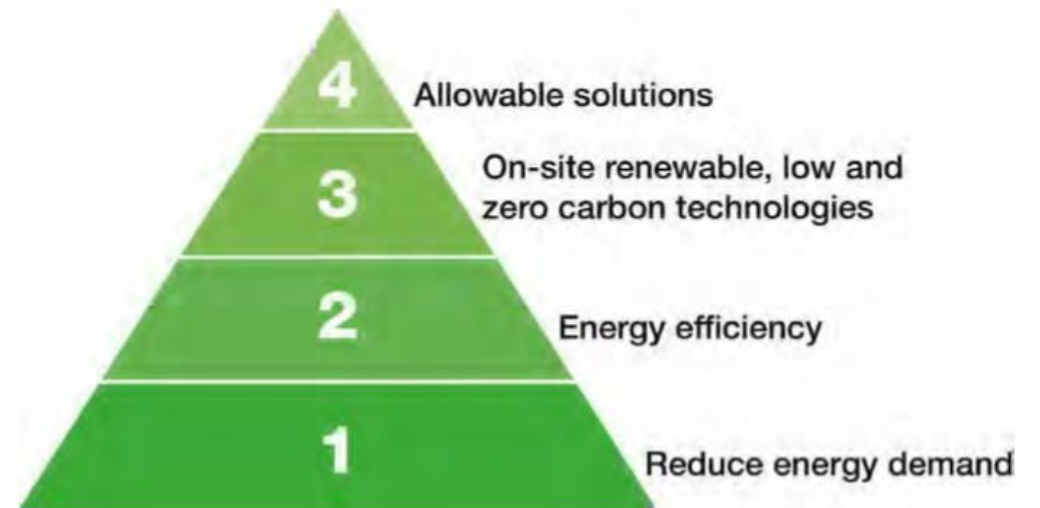
Net Zero Housing

- Insulation & Air tightness
- Solar PV
- Heat pump



SPD – Climate Change Mitigation

- Net zero carbon including unregulated emissions & EV charging
- If not possible onsite pay into an offset fund at cost of solar PV plus 20% (covers project management & encourages onsite compliance)
- No gas or electric resistive heating
- Heat pumps – communal over 10 flats or 50 street properties



Heating System Efficiencies - Newbuild

	Efficiency	Space Heating and Hot Water Demand inc Losses kWh/yr	Gas / Electrical Input kWh/yr	CO ₂ Emissions kg/yr	Solar PV (kW) required to achieve Net Zero Carbon for Heating and Hot water
Gas condensing boiler 90% efficiency (not allowed but shown for illustration)	90%	7,000	7,778	1,633	7.0
Direct electric panel heaters (not allowed but shown for illustration)	100%	7,000	7,000	1,631	7.0
Individual air source heat pump	250%	7,000	2,800	652	2.8
Water source heat pump plus communal heating	500%	8,400	1,736	404	1.7



Passivhaus Standards

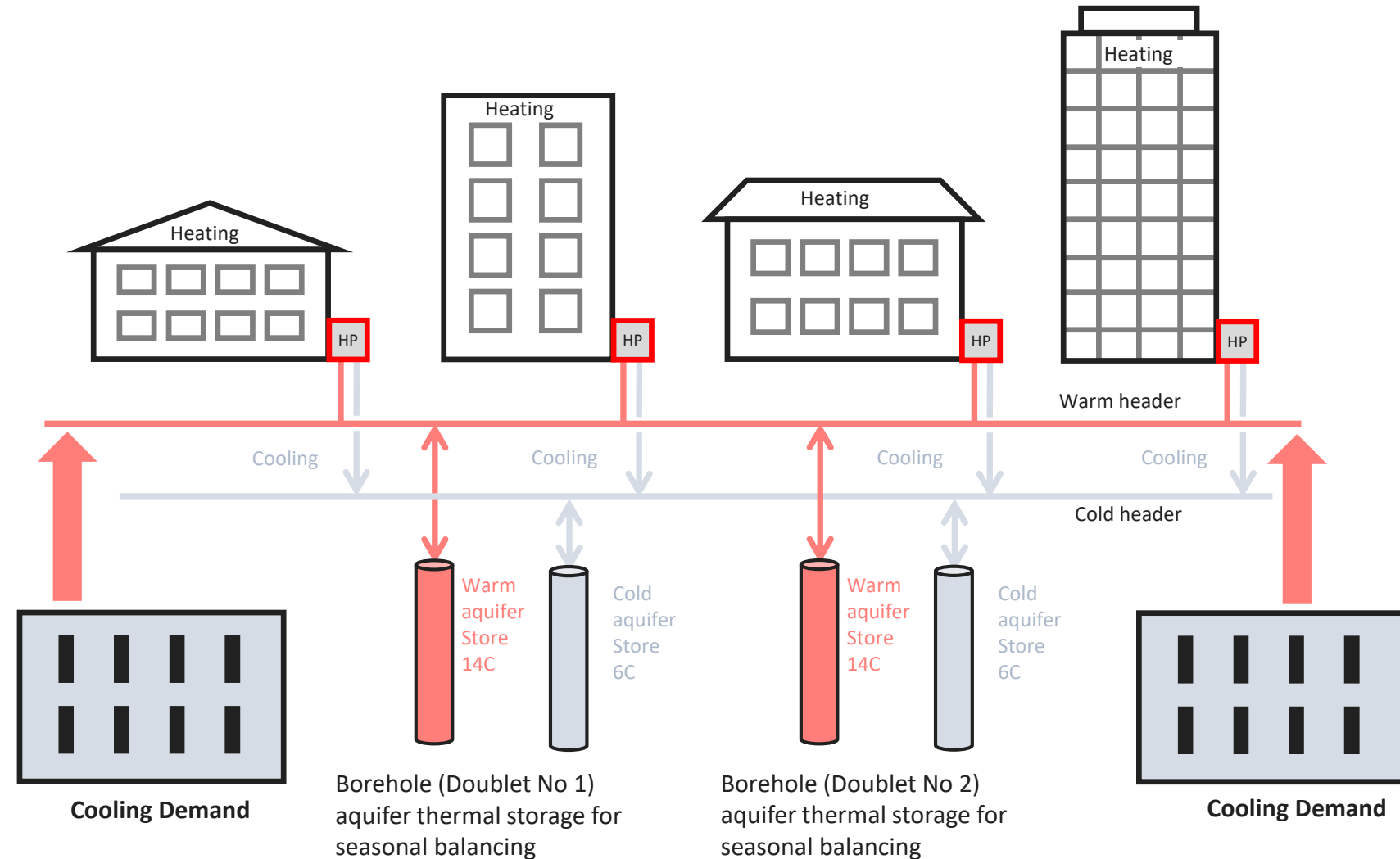
	Efficiency	Space Heating and Hot Water Demand inc Losses kWh/yr	Gas/Electrical Input kWh/yr	CO2 Emissions kg/yr	Solar PV (kW) required to achieve Net Zero Carbon for Heating and Hot water
Gas condensing boiler 90% efficiency (not allowed but shown for illustration)	90%	4,500	5,000	1,050	4.5
Direct electric panel heaters (not allowed but shown for illustration)	100%	4,500	4,500	1,049	4.5
Individual air source heat pump	250%	4,500	1,800	419	1.8
Water source heat pump plus communal heating	500%	5,400	1,116	260	1.1



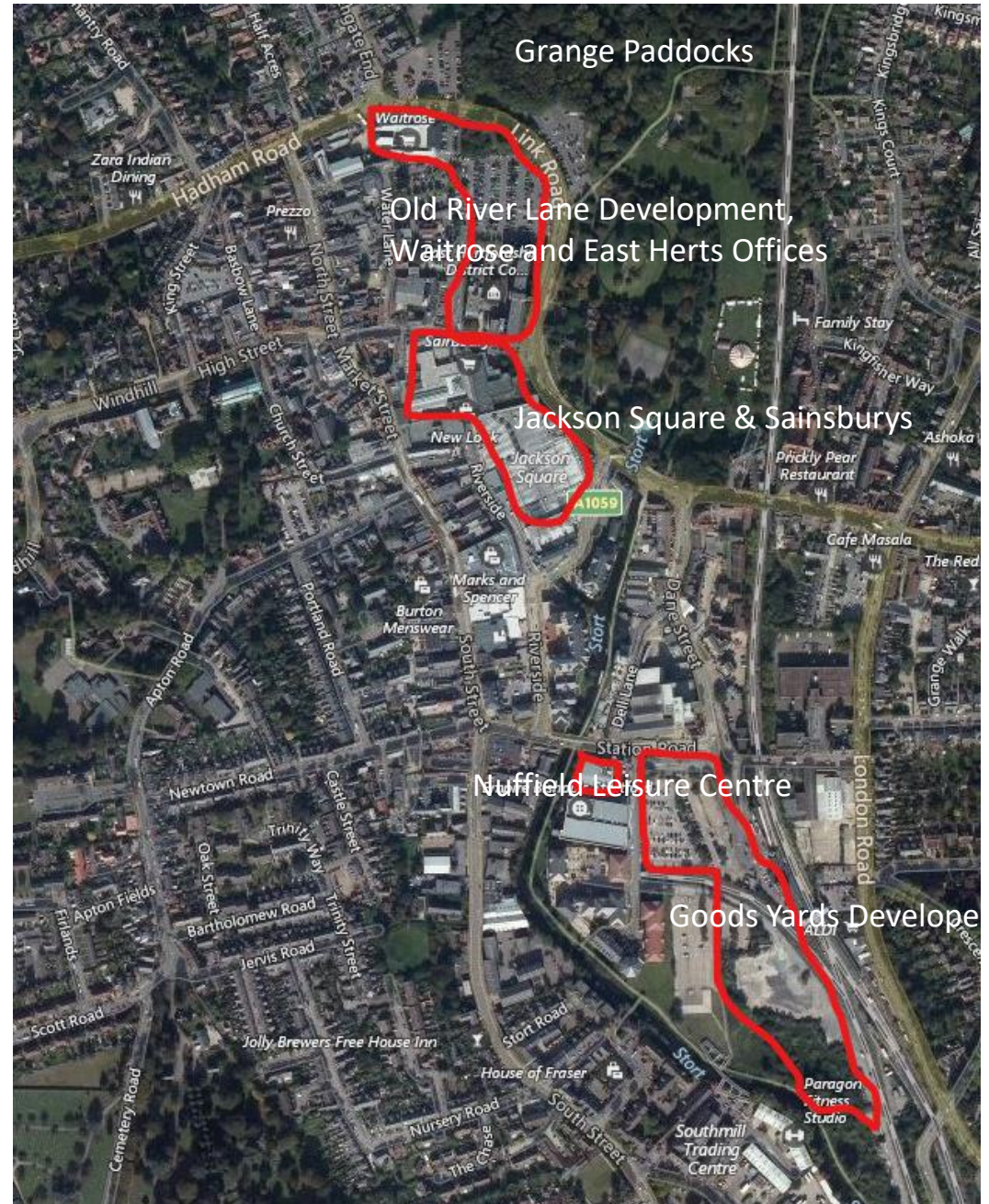


Why communal/district heating?

- Higher efficiencies
- Ability to “load shift”
- Easier to install in flats
- Potential to roll out to existing buildings
- Ability to prosume



BS Heating & Cooling Anchor Loads



Boreholes

Geological Survey

British Geological Survey

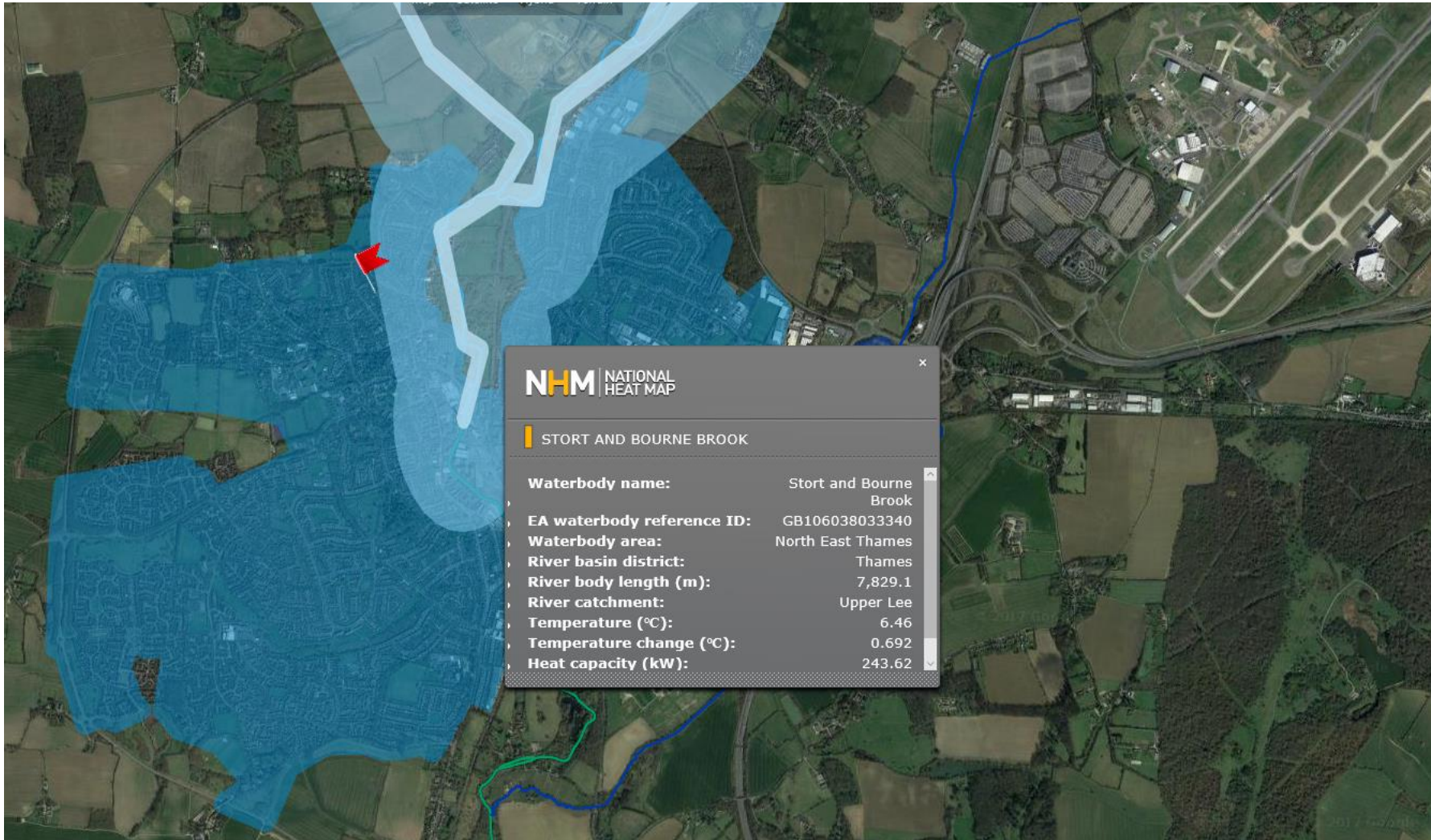
British Geological Survey

222/279 Messrs. Eenskins Watford Brewery Ltd., The Maltings, Dell Lane,
Bishop's Stortford. (Disused)

Surface +189. Shaft 18 × 6; rest bore. Lining tubes: 178 × 8 in from surface;
37 × 6 in from 178 down. Water struck at -121. R.W.L. +178. Venison, Feb. 1953.
R.W.L. +182½. P.W.L. +169½ (after 6 h.). Yield 4,800 g.p.h. Electric pump.
Hardness: P. O. T. 255. Anal. Mar. 1953.

Sand and Gravel (Buried channel)	...	203	203
Uck)	...	122	325
Mck)	...		





Extensions

Where a planning application for a dwelling or commercial extension a statement is also required. This should also demonstrate net zero carbon for the extension element. This may be achieved by modifications to the existing building.

