

East Herts Climate Change Strategy

DRAFT
ACTION PLAN
(Version 1.3)

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Note on Draft Action Plans –

Carbon saving, timescales and costs

For most actions shown below an indication of the level of carbon saving, implementation cost and timescale is given. By their very nature these are only approximations.

With regard to carbon saving the indication low, medium and high is given to aid understanding. It has not been possible to calculate this accurately for all actions and therefore represents a best guess. It is also relative to the type of action proposed.

Low cost is considered to be in a range from very low cost to approx £3000; medium cost - £3000 to £8000; and high cost – in excess of £8000.

Timescales for implementation of actions depend on complexity of project and sourcing of funding. These range from quick wins- which could be undertaken immediately; short – within one year; medium – within two years and long – in excess of three years.

Proposed Actions

Many of the actions identified have yet to be fully analysed in terms of full cost benefit, in order to make a business case before proceeding, however, the Climate Change Member Task and Finish Group is keen that all actions are actively considered within financial constraints.

The Action Plan should be read in conjunction with the East Herts Energy Policy and Action Plan (agreed 2006) as that document is closely allied to the Climate Change Policy and Action Plan.

Section 1.0

Action on - Management of land and buildings

Introduction and context:

Scope of service area	<p>Management of corporate buildings and the management of land owned by the District Council.</p> <p>Examples of land holdings are countryside sites, parks, play areas, sports pitches, car parks and allotment sites.</p> <p>Issues relating to private sector housing are considered under the Education, Promotion and Relevant Corporate Policies action plan. The procurement of energy is addressed under the Procurement and Waste action plan.</p>
How service area can mitigate the causes of climate change	<p>Emissions of CO₂ associated with use of gas and electricity can be reduced by minimising energy requirements, using energy efficiently, installing low carbon or (better) renewable energy systems and ensuring that where electricity from fossil fuels is used, clean technologies are employed in its generation (the Energy Hierarchy).</p> <p>Increasing the take-up of CO₂ eg primarily by trees - can reduce CO₂ levels.</p>
How service area will be affected by climate change	<p>Increasing unit costs of gas and electricity and a possible increase in frequency of power cuts as a greater proportion of power station fuels are sourced from outside the UK.</p> <p>Increasing requirement for summer cooling (and external shade) and reduced requirement for winter heating.</p> <p>Increasing cost of water supplies and increasing demand for irrigation of landscaping.</p> <p>Extended plant growing season likely to result in higher grass cutting and weed control costs.</p> <p>Increase in maintenance and insurance costs and possible increased safety risk associated with storm damage, localised flooding and subsidence.</p> <p>Increased demand for and use of outdoor recreation facilities and allotments over an extended season, and for activities arranged for summer evenings rather than during the hotter times of the day.</p> <p>Changes in the requirements of wildlife species occupying or using our sites, for example, a need to move northwards to avoid the impacts of climate change.</p>

Responsibilities under legislation/policy	<ul style="list-style-type: none"> • EC Directive on Energy Performance of Buildings • East Herts Energy Policy (2006)
Other relevant factors	The Council is currently undertaking a review of its offices, with the aim of consolidating office space to a single site (3CW).
Strategic aims of action plan	To reduce consumption of gas, electricity and water in corporate buildings; To consider the likely effects of climate change in the way that Council land is managed for the purposes of recreation, biodiversity and local amenity.

Overall indicators:

For main corporate buildings:

- Electricity consumption as kWh/year
- Weather-corrected and non-corrected gas consumption as kWh/year
- Proportion of electricity generated from renewable sources as % (a) externally sourced (b) generated corporately
- CO2 emissions associated with electricity consumption as tonnes/year (a) assuming no renewable sources used (b) actual source mix
- CO2 emissions associated with weather-corrected and non-corrected gas consumption as tonnes/year
- Water consumption as cubic metres/year (need to establish data capture system for this)

As above for Council-owned leisure buildings managed by the leisure trust, where data are available.

DRAFT ACTIONS:

	Action	Carbon Saving	Benefit	Risks	Cost	Time
<u>Energy Buildings</u>						
Metering						
1.1	Introduce smart metering to all council premises inc pools, offices, depot, car parks etc.	High	Relatively low cost. Accurate metering of all utilities, on demand and up-to-date. Ability to set warning thresholds.	No significant issues	Low	Short
1.2	Metering linked to web & make available on intranet/internet/reception areas.	Med	Improve awareness of staff and public on energy use.	Highlight potential high energy use.	Low	Short
Technical Equipment						
1.3	Investigate use of Gas flow regulator – Wallfields.	Med	Some LA’s have seen 5-8% reduction in gas use.	Cost – though relatively low.	Med	Med
1.4	Investigate voltage regulation at depot/ Wallfields.	Low	Case studies from LA’s have shown 3-7% reduction in electricity use.	Cost.	Med	Med
1.5	Introduce Zoned lighting control in all office space and enhance flexibility of existing e.g. to switch off lighting adjacent to windows.	Med	Reduces energy uses. Popular with staff. Good example.	Cost - although can be installed as part of refurbishment.	High	Med
1.6	Introduce PIR lighting control – Wallfields / Pools and other facilities.	Med	Reduces energy use. Can switch off if little movement in room.	Cost –Pools – Co-operation of contractors.	High	Med

1.7	Investigate auto power down of PCs and printers.	Med	Ease of control. Reduces energy consumption.	Cost. Some effect if machines turned off manually.	Med	Med
1.8	Investigate external shading to south elevation of Wallfields and /or replace glass conservatory roof with standard roofing.	High	Reduces cooling costs. Likely to be popular as overheating is a problem on top floor.	Cost -relatively high. Visual appearance.	High	Long
1.9	Ensure solar reflective blinds are in place throughout all offices where necessary.	Med	Reduces cooling costs. Improves working environment.	Cost – though relatively low.	Low	Quick Win
1.10	Enhance roof insulation of Wallfields to current standards.	High	Improved insulation will reduce energy consumption costs. Improved working environment.	Cost – Access problems.	High	Med/ Long
Renewables 1.11	Commission detailed report on potential for renewables across Council buildings.	N/A	Provides comprehensive evidence for best value approach for renewables.	Cost for report. Costs for implementation. Delays action.	Med	Short
1.12	Install solar thermal array to toilet block at Wallfields.	Med	Reduces energy demand. Grants available. Good exemplar.	Cost.	High Grant Available	Short
1.13	Install public exemplar solar PV array at Wallfields.	Med	Reduces energy demand. Good exemplar. Grants available.	Cost. High cost: carbon ration.	High Grant Available	Short
1.14	Install 15kW turbine at Buntingford.	High	Reduces energy demand. Good exemplar. Grants available.	Cost.	High Grant Available	Med

1.15	Investigate installation of solar thermal at second public convenience e.g. Bell Street.	Low	Reduces energy demand. Good exemplar. Existing project working well.	Cost.	Low Grant Available	Short
1.16	Install mini hydro facility at Castle Hall.	High	Reduces energy demand. Good exemplar Grants available	Cost.	High Grant Available	Med
1.17	Investigate opportunity for solar signage in car parks.	Med	Good exemplar. Small energy reduction.	Implementation cost.	Med	Med
1.18	Investigate rationisation of server room to minimise power requirements.	High	Reduce energy consumption.	No significant issues	Low	Med
1.19	Reduce unnecessary storage of data on servers.	Med	Reduce energy consumption.	Requires new protocol on storage.	Low	Short
1.20	Increase occupancy level of Wallfields to reduce per head heating demand.	High	Reduces per head heating costs.	Reduced comfort. Increased cooling costs.	High	Med
1.21	Encourage home working by staff.	High	Reduces energy demand. Reduces desk space. Flexibility for staff.	IT issues. Moves energy demand to members of staff own homes.	Low	Short
1.23	During planned maintenance introduce high efficiency lighting for car parks.	High	Reduced energy demand. Good exemplar. Reduces light pollution.	Cost –but limited if during planned maintenance.	High	Short
1.24	Work with new leisure contractors to incorporate energy conservation and renewable energy.	High	Likely high reduction in energy demand.	Contract issues. High capital costs. Temporary closures of facilities.	High Grant Available	Med

Water 1.25	Fit spray taps as standard and on replacement.	Low	Low cost. Reduces water consumption.	Limescale may cause maintenance issues.	Low	Short
1.26	Fit dual flush toilets as standard and on replacement.	Low	Reduces water consumption. Low cost.	No significant issues	Low	Short
1.27	Investigate potential for rainwater harvesting at Wallfields and other sites.	Med	Good exemplar. Water saving.	Cost.	High	Med
1.28	Introduce carbon offset budget to compensate for corporate carbon footprint.	High	Enables Council to be carbon neutral. Good exemplar project. Provides budget for other projects.	Cost.	Med	Short
1.29	Introduce teleconferencing facilities to reduce need to travel.	Med	Reduces need to travel. Reduces costs. Convenience.	Cost of IT equipment. Lack of personal interaction.	Med	Med
1.30	Promote Go green on the office kettle – investigate instantaneous hot water heaters for Wallfields.	Low	Potential energy saving. Convenience / reduces wasted staff time.	Cost.	Low	Short
1.31	Investigate use of Pool covers at Pools.	Med/ High	Reduce energy consumption & condensation.	Cost / space / safety. Deployment time / manual handling.	High	Med
1.32	Investigate new Environmentally more friendly water cleaning /UV / ionization.	Med	Energy reduction. Good PR.	Costs. Energy use increased for UV.	High	Med
1.33	Phase out use of bottled	Low	Reduces carbon	Possible need where no	Low	Short

	water in council premises where contracts allow		emissions from production and transport	ready access to tap water Possible HR issues		
1.34	Promote the use and introduction of 'Hippos' (water saving devices) to reduce flush in toilet cisterns	Med	Water and Energy saving Raises awareness	Should only be used in appropriate cisterns	Low	Short

Section 2.0

Action on – Transport

Introduction and context:

Scope of service area	Fleet transport, staff business travel, staff commuting and councillor business travel. The specification of fleet vehicles is considered under this action plan, but there are obvious links with the Procurement and Waste action plan and the East Herts Transport Strategy
How service area can mitigate the causes of climate change	Reducing emissions of global warming gases (principally CO ₂) associated with the use of fuels such as diesel, petrol and LPG in vehicles. This can be achieved by not travelling (for example, in some cases the use of video-conferencing can replace the need to travel), reducing the distance travelled (eg by better route planning), using fuels or modes of travel that emit less CO ₂ over a given distance (eg using electricity-powered vehicles or travelling by trains or buses), and using fuels more efficiently (eg by using smaller vehicles or adopting a more fuel-efficient driving style).
How service area will be affected by climate change	<p>Increasing costs associated with vehicle fuels (due to dwindling global reserves and rising levels of fuel duty), vehicle excise, and possibly road/congestion charges in future.</p> <p>Increasingly frequent disruption to travel from flooding, subsidence, melting of road surfaces, buckling of railways in summer and debris in the road. Less disruption due to ice and snow.</p> <p>Increasingly carbon-efficient vehicles coming onto the market as manufacturers respond to demands and legislative pressures.</p> <p>With warmer drier weather in summer, more staff may choose to walk or cycle to work, but wetter winters could deter this at other times of the year.</p>
Responsibilities under legislation/policy	MOT for vehicle owners/operators.
Other relevant factors	All Council vehicle fleet is leased.
Strategic aims of action plan	To use more carbon-efficient fuels, technologies or modes of transport whilst reducing overall distance travelled.

Overall indicators:

- Quantity of each fuel type (diesel, LPG and petrol) dispensed to fleet vehicles as litres per year
- Gross CO2 emissions associated with consumption of each fuel type as tonnes per year
- Total staff / councillor business mileage per year by car, train, bus and bike

DRAFT ACTIONS:

	Action	Carbon Saving	Benefit	Risks	Cost	Time
<u>Transport</u>						
2.1	Implement Car share Data base linked to HCC. Provide Car share spaces Investigate benefits of providing Pool cars and Staff minibus between sites.	Med Med	Encourage share Discourage use Multi-functional courier	Lack of provision for essential users. More on-street parking. Reduced flexibility. Timing of meetings. More meeting rooms. Running bigger vehicle with more carbon impact.	Low High	Short Med
2.2	Investigate “Green leased cars” eg biofuel mix and LPG / extend lease car period / CO2 emissions limits	Med	Lease vehicles tend to be more fuel efficient as more modern engines and regular maintenance, than privately purchased vehicles.	Staff T & C’s.	Cost borne by staff	Med
2.3	Permit LPG use in staff vehicles.	Med	Overall CO ₂ reduced.	Lease issues.	Cost borne by staff	Med

Member Travel 2.4	Investigate opportunities for reducing member travel through car share /location of meetings/ opportunities for use of IT	Low	Reduce car travel.	IT/Cost Difficult to attract Members. Quality of decision making. Equalities.	Low/ Med	Med
Staff Commuting Cycle/walk 2.5	Investigate potential for encouraging increased cycle use by staff and members including: Provide Adult cycle training. Cycle storage at work. Provide better changing facilities/Showers/ hairdryers. 'Ride to work scheme'. Electronic charging points. Bike mileage scheme. Incentives. Pool bikes.	Likely low	Carbon saving. Health benefits. Subsidised bikes.	Safety Ability/fitness Equalities issue Insurance + H&S Risks.	Med	Med
Bus/Trains 2.6	Promote season ticket loan scheme for staff To/from work On business EHC funded bus service	High High	Reduced emissions. B/S to Hertford.	Availability of service. Cost. Potential combine with pool cars. Cost. Fuel efficiency of buses.	High High	Med Long
2.7	Investigate reciprocal office arrangements with other local authorities	Med	Staff work near home reduce commuting time / carbon emissions	Space/ cost issues	Med	Med

<p>Contractors vehicles / transport</p> <p>2.8</p>	<p>Investigate and implement stricter Environmental criteria in contracts relating to transport issues – readjust weighting of contract evaluation. Carbon limits for tenders Mapping routes. Alternative fuel / electric vehicles.</p>	<p>High</p>	<p>Improved environmental performance.</p>	<p>Could cost more.</p> <p>Work involved / adherence Vehicles cost more or less reliable Payload less.</p>	<p>High</p>	<p>Long</p>
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Section 3.0

Action on - Procurement and waste

Introduction and context:

Scope of service area	The procurement of goods and services by the Council (not including vehicles, which are considered under the Transport action plan). The management of waste produced by the Council. The management of household waste.
How service area can mitigate the causes of climate change	<p>All goods (such as paper) have an embodied energy, which reflects the energy that has gone into the extraction or production of their raw materials, manufacture of goods from their raw materials, and distribution of the end product. In general, the higher the embodied energy, the more CO2 that has been emitted.</p> <p>By purchasing only the quantity of goods that is needed, the amount of material - and energy - wastage is minimised. Waste contributes to climate change by being a loss of embodied energy and by requiring the use of vehicle fuels in its collection and handling. In addition, biodegradable waste material produces global warming gases when landfilled (see below).</p> <p>By making careful decisions about the kinds of goods selected for purchasing - buying durable items, selecting equipment that uses least electricity over its life-time, or sourcing goods locally, for instance - total embodied energy and CO2 emissions can be minimised.</p> <p>Recycling enables new materials to be made from recycled ones instead of raw materials, thereby reducing the amount of energy required (and CO2 produced). There can be other environmental benefits too - making paper from recycled fibre, for example, uses significantly less water than the production of virgin paper. Recycling also reduces the quantity of material consigned to landfill. Selecting recycled and recyclable products is therefore beneficial.</p> <p>Global warming gases (CO2 and methane in approximately equal proportions) are produced by biodegradable waste such as paper, garden and vegetable waste when it decomposes under the anaerobic conditions that exist in landfills. Methane produces more than 20 times the global warming effect than CO2 per molecule. Composting such waste produces less methane and contributes less to climate change. It also means that less landfill space is used.</p>

<p>How service area will be affected by climate change</p>	<p>Running costs of items using electricity or fuels will increase as a proportion of life-time cost.</p> <p>The costs of waste disposal will increase as waste management controls become more stringent.</p> <p>Recycling targets will increase.</p>
<p>Responsibilities under legislation/policy</p>	<p>The potential role that local authority procurement can play in reducing climate change is reflected in the National Procurement Strategy for Local Government in England (2003). This states that all local authorities should use procurement to deliver objectives set out in community plans, including environmental objectives.</p> <p>New national performance indicators for local authorities and local authority partnerships:</p> <p>NI 191 - Residual household waste per head (kg per head per year)</p> <p>NI 192 - Household waste recycled and composted (%)</p> <p>NI 193 - Municipal waste landfilled (%)</p>
<p>Strategic aims of action plan</p>	<p>To reduce the quantity of goods purchased;</p> <p>To reduce the life-time energy (ie energy used in producing/extracting raw materials, manufacture/processing, distribution, during the operational life time and during disposal) of goods purchased;</p> <p>To reduce the amount of waste produced; and</p> <p>To endeavour that biodegradable waste is recycled or composted rather than landfilled in the most efficient way practicable.</p>

Overall indicators:

Note: In relation to procurement and waste, it is not possible at the current time to calculate the effects on CO2 emissions of the actions proposed without spending an unreasonable amount of time obtaining and analysing data. For this reason, progress in relation to climate change mitigation will be monitored indirectly via the following indicators:

- Quantity of household waste per head requiring disposal (NI 191)
- % of household waste recycled or composted (NI 192)
- % municipal waste landfilled (NI 193)
- Quantity of copier paper (and letterhead/compliment slips?) purchased across the Council
- Proportion of recycled paper purchased and % recycled fibre, for copier, letterhead and compliment slips
- Proportion of electricity purchased that is renewably sourced
- Amount of Council’s waste sent to landfill

DRAFT ACTIONS:

	Action	Carbon Saving	Benefit	Risks	Cost	Time
3.1	Investigate Video conferencing and advanced communications.	Med	Reduced travel to meetings. Time saved travelling.	Costs relatively low. Network capacity sufficient. Risk of poorer communication between staff. Training requirement.	Med	Med
3.2	Investigate “Wireless town hall” approach including:	High	Reduced paper.	Set up costs. Officer and Member training needs	High	Med
3.2.1	a) Cordless office telephones which permit mobile workstations.	High	Faster decision making as meetings can be held sooner than otherwise.	HR issues of loss of personal space / paper filing and EDM issues need to be resolved.	High	Med

3.2.2	b) WiFi – access to Council network from any workstation,	High	Increased speed of resolving problems / better customer service.	IT Service resource implications.	High	Med
3.2.3	c) Workflow improvements e.g. “prompting” to advise a message has been received.	High	Reduced number of workstations and saving in office space.	No significant	High	Med
3.2.4	d) Home working – IT and telephony at home.	High	Reduce travel to/from work. Office space savings.	HR implications. Issue of extra heating at home offsetting office energy saving. Refer to C3W Project.	High	Med
3.3	Provide oasis links with partners – e.g. accessibility from Town and Parish Council offices.	High	Reduced need for customer travel to visit office – vehicle emissions savings.	Subject to willingness of / agreement with partners. Issue of cost sharing / increased visitors for partners impacting on their resources.	High	Med
3.4	Investigate potential of providing access to Council services from mobile locations e.g. “mobile town hall” vehicle.	High	Improved customer service. Payments made more quickly	No significant	High	Med

3.5	Investigate opportunities for “Paperless meetings” for officers and Members wireless access; mobile devices; tablet style PC’s in meeting rooms; software that permits electronic note making on committee agendas; digitizing of hand written notes.	High	Reduce paper / printing (including water, energy and ink). Require fewer / smaller printers – leasing and maintenance savings. Saving in staff time – both print unit and service staff making copies.	Risk of Members/Officers printing own copies using less efficient printers. Training needs. Set up costs of IT equipment. Questions over public accessibility to information (Fol issues).	High	Med
3.5.1	Omit the last blank page from Council committee agenda papers – replace with worded statement at end of report to indicate final page	Low	Reduces paper	None	No cost	Short
3.6	Revise default printer settings – double sided and replace single side printers.	Low	Reduce paper.	Replacement costs.	Low	Quick Win
3.7	Ensure all new PC’s are low energy units.	Low	Electricity saving.	Set up costs if change before end of life.	Low	Quick Win
3.8	Procure software for automatically powering down PCs after a period of non-use.	Med	PC and monitor consume .25 Kwh X 10 X 5 X 52 X 370 = 240.5 Mw pa.	Purchase and installation cost.	Med	Med
3.9	Procure hardware for	Med	Energy saving	None significant	Low	Short

	turning off electrical equipment at the socket rather than leaving on standby.		Convenience			
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3.10	Review server room energy usage of hardware and air conditioning Allow temp of server room to rise to 25C (from 20C) save a/c costs. Virtualisation increases server/system efficiency.	High	Servers consume 7 – 8 Kwh $X 24 X 7 X 365 = 490 \text{ Mw pa.}$	No significant	Low	Med
Other 3.11	Continue to specify use of sustainably sourced (FSC) timber for projects and procurement.	High	Protects forests. Ethically correct.	Possible extra cost as FSC may not be cheapest option.	Low	Quick Win
<u>Contracted out services</u> 3.12	Investigate potential for energy saving / procurement saving measures within contracts.	Low	Possible reduction in energy consumption. Reduction in costs. Better procurement choices.	Possible increased costs. Contract issues.	Med	Med
3.13	Investigate potential for enhanced recycling facilities in leisure facilities.	Low	Popular with public.	Cost. Space required.	Low	Short
Contractors vehicles / transport 3.14	Investigate and implement stricter Environmental criteria in contracts relating to transport issues – readjust weighting of	High	Potential carbon saving	Could cost more. Work involved / adherence	High	Long

	contract evaluation.			Vehicles cost more or less		
	Carbon limits for tenders Mapping routes. Alternative fuel / electric vehicles.			reliable. Payload less.		
Contracted Services – Strategic Procurement 3.15	<p>Review Council Procurement Strategy re contract terms for operational contracts</p> <ul style="list-style-type: none"> - Requirement for contractors to show carbon reduction over life of contract - Contract performance criteria re carbon reduction <p>Contracts to require tenders to include alternative options and costs for provision identifying the carbon impact of each e.g. alternative vehicles; alternative fuels; alterations to operational building; contractor staff travel.</p>	High	<p>Ensure that carbon efficient options are considered at contract award stage.</p> <p>Engage contractor is supporting the Council's Policy objectives on Climate Change.</p>	Increasing costs for tax payers if carbon efficient solution more expensive.	High	Long

Contracted Services – Operational improvements						
3.16	Review Refuse and Recycling Service rounds to identify costs and carbon benefits of re-scheduling.	High	Reduction in fuel usage benefiting contractor and the Council.	Potential for more fuel efficient rounds to be less effective in terms of time (staff costs). Potential impact on customer satisfaction. Timing of rounds (e.g. traffic congestion; opening times of tip) need to be considered.	High	Med
3.17	Request County Council to include carbon impact assessment when determining disposal / re-processing locations.	Med	Less distance to travel to tip – fuel saving.	HCC have to consider their own costs and costs to other Councils that also use the same tipping location.	High	Long
3.18	Next Refuse and Recycling contract to include options and costs for alternative fuels for vehicles and evaluate emissions of vehicles.	High	Fuel savings.	Reliability of supply and impact on operational effectiveness of alternative fuels needs to be considered.	High	Long
3.19	Recycling –Continue to develop options to increase level of recycling relative to waste sent to landfill.	High	Reduce emissions from landfill.	Recycling additional materials may increase costs to the Council.	High	Long

3.20	Recycling - introduce monitoring of carbon impact of materials collected Depot operations – set targets for contractors to contribute to reduction in energy use.	Med	Better understanding of how recycling impacts on the Council carbon footprint. Set targets which involved contractors.	No significant	Med	Med
3.21	Depot operations – evaluate energy efficiency of materials processing machinery.	Med	Procure energy efficient machinery.	Needs to be balanced against costs and reliability.	High	Med
3.22	In future procurement/ service contracts the Council will consider the impacts of Climate Change, where appropriate.	Variable – depending on contract	Reduced carbon emissions Potentially helps achieve national/ local carbon saving targets	Needs to be balanced against costs	Variable	Variable

Section 4.0

Action on - Land use planning and building control

Introduction and context:

Scope of service area	Planning policy documents, including the Local Development Plan/Core Strategy, Proposals Maps, emerging Supplementary Planning Guidance/Documents and other documents within the Local Development Framework; Planning Control procedures; Implementation and enforcement of the Building Regulations through Building Control procedures.
How service area can mitigate the causes of climate change	<p>For operations requiring planning permission and in relation to new developments, the planning process can influence aspects such as location, layout, design, orientation, materials, energy requirements and generation, drainage/flood risk, landscaping, external lighting and certain transport features (such as car parking and cycling facilities and proximity to public transport routes). These factors can have a material effect on:</p> <ul style="list-style-type: none">• energy requirements for heating, cooling and power (with knock on effects on CO2 emissions);• people's need to travel and their chosen mode of travel (which affects use of vehicle fuels and associated CO2 emissions);• the planting of trees which take CO2 out of the atmosphere during their active growth, can help stabilise soil, dry soil out, provide shade and air cooling;• water consumption and the management of surface water run-off; and• landscaping features (eg hedges and ponds) which can provide opportunities for wildlife species to migrate in order to avoid the worse effects of climate change; <p>The majority of CO2 emissions are from energy use in buildings. Most buildings in place today will still be here in 2050, so if we are to achieve the long-term national target of a 80% emissions reduction by then, it will be necessary to ensure that new buildings are more than 80% more energy efficient than the existing stock.</p> <p>Building Control, in enforcing Part L of the national Building Regulations, is the principal influence on limiting and reducing carbon emissions from new and existing buildings in the district. They deal with applications for new buildings, extensions to existing buildings and alterations to existing buildings. The latter includes replacement glazing, new heating</p>

	<p>equipment and the thermal upgrading of walls, roofs and floors when they are being renovated. Building Control assesses designs in terms of fabric insulation, airtightness, space and water heating efficiency and lighting efficiency. It ensures that the statutory targets for carbon emissions are achieved by new buildings.</p>
<p>How service area will be affected by climate change</p>	<p>Climate change is likely to change the focus of planning applications and applications under the Building Regulations. It is likely that there will be an increased proportion of applications for or including:</p> <ul style="list-style-type: none"> • Local energy generation via renewable or low carbon technologies (such as wind turbines) • Facilities relating to outdoor recreation, tourism and, in urban areas, the so-called café culture • Water storage facilities (eg irrigation lagoons and domestic rainwater harvesting) • Woodland planting • Sustainable drainage systems (SuDS) • Flood defences <p>The design of all new developments should take account of the effects of climate change, including increased risk of subsidence/heave, increased storminess and frequency of high rainfall events, increased risk of flooding (from surface run-off and rivers), higher summer temperatures.</p>
<p>Responsibilities under legislation/policy</p>	<p>The Regional Spatial Strategy requires new developments over certain size thresholds to meet at least 10% of their anticipated energy requirements through on-site generation via renewable or low carbon technologies (such as Combined Heat and Power systems).</p> <p>PPS 22 on Renewable Energy provides detailed policy guidance to enable local planning authorities to better evaluate renewable energy proposals.</p> <p>Supplement to Planning Policy Statement 1 entitled 'Planning and Climate Change'.</p> <p>In response to the EU Energy Performance of Buildings Directive, Part L of the Building Regulations (Conservation of Fuel and Power) was revised and the most recent revision came into effect in April 2006. This heightens requirements for energy efficiency when a new building is constructed and obliges contractors to make reasonable provisions to improve energy efficiency (insulation, heating and other fixed services) whenever works take place to extend or alter existing buildings.</p>

	<p>The government's aspiration that all new-build homes will be 'zero carbon' by 2016 indicates that energy standards contained in the planning and building control systems will tighten in the next few years.</p> <p>Relevant policies in Local Development Plan (on design, flood risk, public transport and renewable energy).</p>
Other relevant factors	
Strategic aims of action plan	To ensure that emissions of greenhouse gases associated with new developments and operations requiring planning permission are minimised; and that new developments and existing buildings are able to withstand the anticipated impacts of climate change.

Overall indicators:

Note: In relation to land use planning and building control, it is not possible to fully calculate the effects on CO2 emissions of the actions proposed. For this reason, progress in relation to climate change mitigation will be monitored indirectly via the following indicators:

- Capacity of renewable energy installations that have received planning permission in kW or MW (cumulative)
- NI 175 - Access to services and facilities by public transport, walking and cycling

DRAFT ACTIONS

	Action
4.1	<p>Planning will Require and enforce the regional requirement for new developments of more than 10 dwellings or 1000m² of non-residential floor space to secure at least 10% of their energy from decentralised and renewable or low-carbon sources, unless this is not feasible or viable.</p>

4.2	Planning will Require development to comply with existing policy in respect of flood prevention and alleviation.
4.3	Planning will Seek to encourage the creation of Sustainable Urban Drainage systems in accordance with the recommendations of the Council's Strategic Flood Risk Assessment.
4.4	Planning will Seek to encourage, where appropriate, new developments to install District Heating systems and Combined Heat and Power (CHP) generation facilities, in accordance with national and regional policy.
4.5	Planning will Encourage new development to achieve ambitious standards in sustainable construction, measured against the Code for Sustainable Homes and the BREEAM building standards for non-residential development.

4.6	<p>Planning will Seek to encourage new development to incorporate facilities for zero-and low emission vehicles.</p>
4.7	<p>Planning will Seek to encourage new development to maximise opportunities for more sustainable modes of transport, including cycling and walking.</p>
4.8	<p>Through the emerging Local Development Framework, Planning will Set ambitious but viable targets for renewable and decentralised energy generation.</p>
4.9	<p>Through the emerging Local Development Framework, Planning will Work with the County Council's Waste Local Development Framework to establish a policy framework which reduces the impact of waste disposal and maximises the opportunities for use of waste as a resource.</p>
4.10	<p>Through the emerging Local Development Framework, Planning will consider opportunities for innovative sustainable development initiatives across the District</p>

4.11	Through the emerging Local Development Framework, Planning will Consider opportunities for development of sustainable and renewable energy sources such as biomass generation in the rural area.
4.12	Through the emerging Local Development Framework, Planning will Consider opportunities to address climate change adaptation measures, such as provision of green infrastructure.
4.13	The Council will Seek to raise awareness of national guidelines relating to permitted development in respect of permeable paving and installation of domestic micro-renewables outside conservation areas.
4.14	The Council will Continue collaborative working between Planning Policy and other teams such as Environmental Services in order to develop a robust evidence basis for Climate Change policy development.
4.15	The Council will Promote awareness of the Hertfordshire Building Futures website www.hertslink.org/buildingfutures in order to encourage higher standards of development within the district.

Section 5.0

Action on - Education, promotion and relevant corporate policy

Introduction and context:

Scope of service area	Opportunities presented in the course of usual Council business and within existing resources for influencing individuals and organisations in relation to the mitigation of, or adaptation to, climate change.
How service area can mitigate the causes of climate change	<p>By encouraging others to take whatever action they can to reduce emissions of global warming gases by, for example, reducing their energy use or vehicle fuel consumption. This encouragement could be supplied through a variety of routes:</p> <ul style="list-style-type: none">● Financial support for the local Energy Efficiency measures● Displaying leaflets in Council reception areas● Using influence as a member of the Local Strategic Partnership and through the Sustainable Community Strategy process● Articles in The Link to households, Update newsletter to staff● Continued involvement with Environmental Forum● Press releases● Signposting to sources of help and advice when members of the public ring Council officers● Environmental Health Officers making visits could signpost businesses to sources of advice on waste and energy efficiency● Countryside Management Service events● Arts Service themes and events● The Council's website● Inclusion of relevant and appropriate conditions in grant offers to businesses● Day to day contacts between Councillors and their constituents● Formal or informal staff training● Responses to consultations from national government and other bodies on draft policies and plans● Leading by example - eg including statements on corporate letterhead and documents publicising the fact that the paper contains recycled fibre

How service area will be affected by climate change	
Responsibilities under legislation/policy	<p>The Local Government White Paper (2006) imposes a duty on local authorities to lead their community and their local partners on climate change.</p> <p>Awareness raising is a key part of the Council's HECA (Home Energy Conservation Act 1995) strategy.</p> <p>HECA target - 30% reduction in energy use in homes over 10 to 15 year period.</p> <p>LAA Indicator - NI 186</p> <p>New national performance indicators for local authorities and local authority partnerships: NI 187 - Tackling fuel poverty - % of households on income-related benefit for whom an energy assessment has been carried out, and whose SAP rating is below 30 (ie in energy-inefficient homes)</p> <p>NI 188 - Adapting to climate change - assesses local authority preparedness to manage risks to individuals, communities and businesses from a changing climate, and to make the most of new opportunities.</p>
Other relevant factors	
Strategic aims of action plan	To heighten awareness and understanding of the causes and impacts of climate change, and encourage individuals and organisations to take action to reduce emissions of global warming gases or make changes enabling them to better withstand the impacts of climate change.

Overall indicators:

Note: In relation to education and promotion, it is not possible to calculate the effects on CO2 emissions of the actions proposed. For this reason, progress in relation to this area will be monitored indirectly via the following indicators:

- Average SAP rating of all housing stock
- Carbon savings (expressed as tonnes of carbon), due to the installation of domestic insulation measures and small-scale renewables
- Number of PR outputs (eg press releases, articles etc) that address aspects of climate change
- NI 185 - CO2 reduction from local authority operations
- NI 186 - Per capita CO2 emissions in the local authority area

- NI 187 - % of households on income-related benefit for whom an energy assessment has been carried out, and whose SAP rating is below 30

DRAFT ACTIONS:

	Action	Carbon Saving	Benefit	Risks	Cost	Time
<u>Promotion and Awareness</u>						
5.1	Caretakers to check that printers & copiers are switched off during night time close of buildings.	Med	Low cost	Extra duty for caretaker. Machine needs to be switched back on in morning.	No cost	Quick Win
5.2	Staff briefing sessions to include climate change / energy / facts and figures / top tips.	Low	Improves awareness. Demonstrates commitment from senior management.	No significant	No cost	Quick Win
5.3	Introduce climate / carbon awareness at staff induction.	Low	Improves awareness of measures available. Reduces energy consumption. Improves recycling targets.	Lack of time at induction session.	No cost	Quick Win
5.4	Discuss with HR feasibility of including climate change / carbon reduction as element of all staff JD's /PDR.	Low	Raises awareness and increases opportunity for positive actions.	Complexity of introducing into JD's for all staff. Opposition from staff/union??	No cost	Short
5.5	Include carbon implications assessment on committee report.	Med	Raises awareness and identifies carbon "costs".	Time Expertise	Low	Short

5.6	Increase ready access to recycling receptacles: <ul style="list-style-type: none"> • Reduce number waste bins • Increase number of paper recycling bins. 	Low	<ul style="list-style-type: none"> • Improves recycling • Reduces waste to landfill • Highlights issue 	Staff time may increase in walking to litter bins. Need to determine who will empty recycling bins.	Low	Short
5.7	Promote office recycling initiative on regular basis.	Low	Low cost. Popular with staff Easy.	Some risk of boring staff if done on too regular basis.	Low	Quick Win
5.8	Promote energy insulation measures to staff.	Ditto	Ditto	Ditto	Ditto	Ditto
5.9	Investigate Introduction of loan / deduction from salary for purchase of domestic loft / cavity wall measures by staff.	Low	Popular with staff Reduces energy consumption Helps with NI186 target.	Cost.	Med	Short
5.10	Investigate possibility of making staff 'Update' electronic only.	Low	Reduces cost. Saves paper.	Not all staff can receive emails. May be less effective.	Low	Short
5.11	Investigate potential for provision of safer driving / fuel efficient driver training for staff and members possibly linked to advanced driver training course.	Med	Reduces cost. Low cost if lunchtime seminar.	Low uptake if part of advanced driver training. Conflicts with principles of advanced driver training.	Low	Short
5.12	Encourage staff to allow more time to travel to meetings to encourage speed reduction.	Low	<ul style="list-style-type: none"> • Low cost • Increased safety • Reduces fuel consumption 	Small increased staff time cost to Council. Requiring better time management.	Low	Quick Win

5.13	On electronic marketplace procurement investigate promotion of carbon footprint on standard items to allow comparison.	Med/High	<ul style="list-style-type: none"> Increases awareness. Highlights other environmental costs of procurement options. Better informed choices. 	Possible complexity Cost of additional software required.	Med	Short
5.14	Promote concept of a computer siesta.	Low	<ul style="list-style-type: none"> Promote concept of turning off PC when away from desk for any length of time. Good practice. 	No significant	No cost	Quick Win
5.15	Encourage a switch off lights campaign.	Med	Low cost Energy saving.	No significant	Low cost	Quick win
5.16	Appoint volunteer staff energy wardens to promote switch off campaign.	Low	Low cost Energy saving	No significant	No cost	Quick Win
5.17	Investigate further improvements to office recycling, as good basis for staff awareness / promotion of climate change.	Low	Low cost	No significant	Low	Short
5.18	Promote use of 'Hippos' (water saving devices) to reduce flush volume in toilet cisterns	Med	Low cost Useful promotional tool	Should only be used in appropriate cisterns	Low	Short
5.19	Investigate development of a staff volunteering scheme to promote team development and undertake small scale local community environmental	Low	Positive staff development tool Potential to link with other organisations e.g. Groundwork and Herts and Middx Wildlife Trust Will enable small projects to be undertaken	None significant	Low	Med

	improvements					
5.20	Hold staff environmental awareness event to provide briefing on carbon saving/green measures at home and work	Low	Provides information for staff. Encourages uptake of carbon saving measures and spreads corporate message	None significant	Low	Short