

COOL



WIRRAL CLIMATE
CHANGE STRATEGY
2014 - 2019



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FOREWORD

There are a growing number of people and organisations in Wirral taking action on climate change. Cool provides a common framework to encourage and co-ordinate such action and so boost its impact. We already know many of the things we need to do to tackle climate change; but we need to do them more widely and fast. Many of these actions will make Wirral a better place: healthier, less polluted, more accessible and self-reliant. They will present some exciting and sustainable economic opportunities too.

Global climate change can be a daunting issue. When faced with a frightening prospect it's natural to feel overwhelmed, to question the problem or simply ignore it in the hope that it goes away. By acknowledging the issue however, we can start to put things right. Climate change matters to Wirral; ignoring it won't help. The climate is changing as global temperatures rise. This temperature rise is associated with 'greenhouse gas' pollution from our activities - principally the burning of fossil fuels for heat, power and transport. We need to cut this pollution to limit the damage. We also need to adapt to unavoidable changes from pollution already in our atmosphere. 'Business as usual' is no longer an option but better business is.

Whilst climate change is a global problem, it is in local communities - our workplaces, our schools, our families - where the impacts are felt. It is here on the 'front-line' where many solutions lie. We urge you to join us on Wirral's front-line: not just to read this strategy but to help put it into practice. If we all do that that really would be **COOL**.

WIRRAL CLIMATE CHANGE GROUP

INTRODUCTION

This strategy's purpose is to encourage and co-ordinate climate change-related action and investment by people and organisations with an interest in Wirral (Box 1.1). To do this, the strategy charts the broad direction of travel needed over the next five years. It highlights:

- **The main areas where we need change;**
- **The local course of action to create it; and,**
- **The opportunities for communities, organisations, households and individuals to help bring this change about.**

It's important to remember that you - and other people who read this strategy - need to take action to help make these changes happen. Bear this in mind as you read on.

Box 1.1: INTRODUCING WIRRAL

Wirral is a coastal Borough in northwest England. It lies on the peninsula between the Mersey and Dee estuaries strategically located between the economic centres of Liverpool and Chester. Its position and infrastructure ensure Wirral presents good opportunities for development.

Wirral is one of the largest metropolitan areas in England at 60 square miles. It is home to around 320,000 people and over 8,000 businesses. Just over half of Wirral is open countryside. Its coastline is an attractive destination for tourists and is also of international importance for migratory birds. Older urbanised areas lie to the east adjacent to docks, port and maritime facilities along the banks of the Mersey.

Many, though by no means all, Wirral residents enjoy a good quality of life with good housing, schools and a high quality environment. However, there is a strong contrast between the older, highly urbanised areas of Birkenhead and Wallasey which contain some of the poorest communities in England, and the wealthier commuter settlements in the west which include one of the most affluent. There are some serious quality of life and health inequalities between these communities. Tackling these inequalities is a key concern for the local council and partner agencies.



Burbo Bank wind farm

THE STRATEGY HAS TWO MAJOR GOALS, TO:

- 1. Substantially cut climate pollution associated with Wirral (Box 1.2); and,**
- 2. Adapt Wirral to unavoidable climate change (Box 1.3).**

Box 1.2: CUTTING CLIMATE POLLUTION

The burning of oil, gas and coal for heat, electricity and transport results in carbon dioxide (CO₂) pollution. Cutting this and related climate pollution (CO₂e) is believed to be a key part in stopping major climate disruption. The UK already has a target to cut CO₂e pollution by at least 37% by 2020 and 80% by 2050 (from 1990 levels). Early action has started to reduce this pollution, but we need to do more. In Wirral, to play our part in achieving the national targets we need to cut emissions to 1289kt (CO₂e) by 2020 and down to 449kt (CO₂e) by 2050.

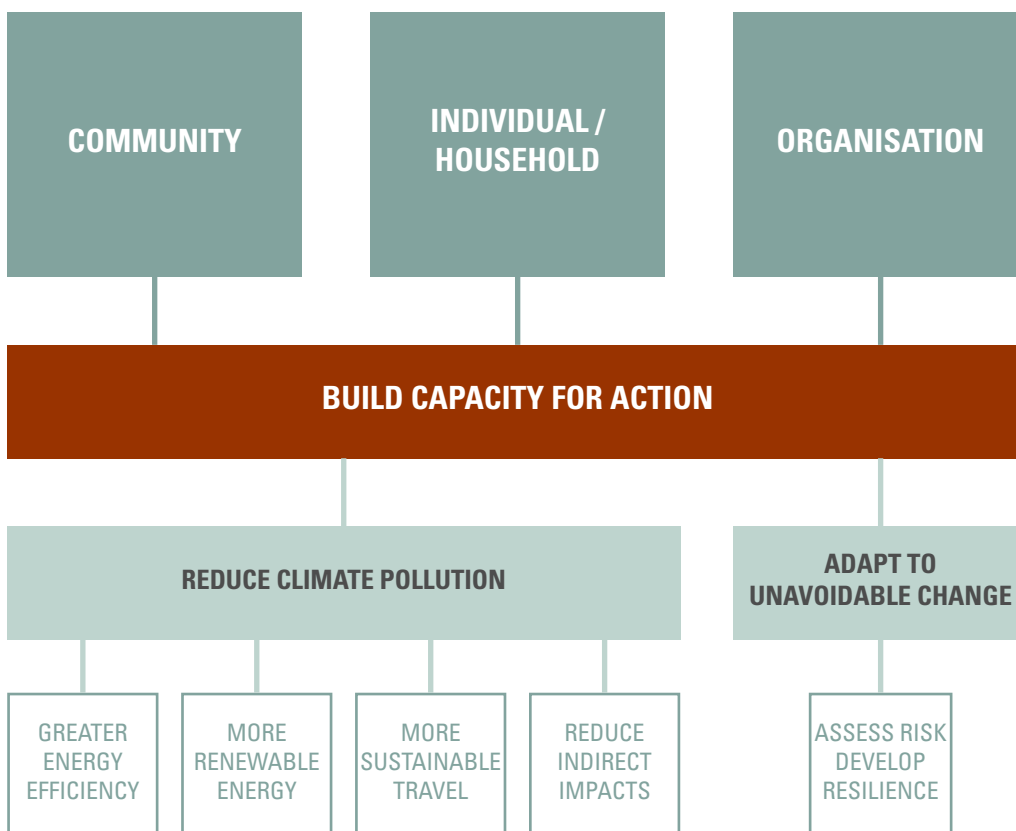
Box 1.3: ADAPTING TO UNAVOIDABLE CLIMATE CHANGE

Even if we substantially cut pollution from burning fossil fuels some impact will be inevitable from pollution previously released into the atmosphere. Weather events already impact on people's health and livelihoods in Wirral. In the future, Wirral is likely to experience:

- Higher summer temperatures with prolonged dry spells and increased frequency of heat waves;
- Warmer, wetter winters;
- More storms and floods; and,
- A rise in sea levels.

Wirral organisations and households will need to adapt to the likelihood of these changes to avoid disruption.

The key elements of the strategy are summarised below.



The remainder of this document introduces these six aims in turn. For each it indicates the:

- Direction of travel needed;
- Foundation for action and potential support; and,
- Objectives to be met.

A final part details the local mechanisms to co-ordinate action, report progress and develop the strategy going forward. Importantly this part also highlights some of the things you can do at home, at work and in the wider community. An appendix provides more detailed background information to illuminate the context for action for each aim. By taking action in support of these aims you'll be helping move towards our vision:

OUR VISION

IN FIVE YEARS TIME...

COSY WIRRAL: Buildings are well insulated

- Nearly every home with a cavity wall and roof space has been insulated properly.
- Older 'solid walled' buildings and other properties that used to be considered 'hard to treat' are being upgraded in volume. The techniques and skills needed to make them more energy efficient are widely available locally.
- Many new buildings far surpass minimum requirements and some set the highest standards.

INTELLIGENT WIRRAL: Less heat and power is wasted

- Older, inefficient heating boilers are few and far between and decent controls mean people can keep buildings comfortable without wasting energy.
- Low energy lighting is the norm with LED lighting now commonplace.
- New combined heat and power systems are in use in several places.

BRIGHTER WIRRAL: Solar energy is a growing source of heat and power

- We have a good understanding about the potential for local buildings to exploit solar energy and solar panels for both heat and power are commonly seen in Wirral.
- Local people and organisations have pooled resources to invest money co-operatively in local renewable energy installations.

GREEN FOR GO WIRRAL: Local transport is more civilised and less polluting

- With good facilities for walking and cycling in place - and getting better - the 'default' choice for short journeys is no longer to reach for the car keys.
- Transport services and ticketing are well integrated with smart technologies widely used that make it easier to get around.
- Dedicated charging and alternative fuel filling points are in place to support the growing number of electric powered and alternative fuelled vehicles in the local fleet
- Drivers are aware of how to drive their vehicles in a fuel-efficient way.



Vehicle Recharge point, Seacombe Ferry

GREEN SHOOTS WIRRAL: Investment in climate-related action is high

- There is a strong and growing group of local businesses that produce products or deliver services that help in the transition to a low carbon, climate-ready world.
- The take-up of programmes designed to provide incentives for, or remove barriers to climate-related improvements, is high.
- Targeted help and support has reached households vulnerable to the cold or in 'fuel poverty'. Most have now taken advantage of support available from utility companies and others to improve their homes.
- Wirral is a widely recognised centre for investment in the manufacture and servicing of off-shore wind turbines.
- The Wirral Waters development is beginning to take shape based on plans for a major district heating scheme with combined heat and power.
- Wirral is widely seen as a place that means business with respect to climate action

SWITCHED ON WIRRAL: Awareness and action on climate change is widespread and growing

- There is a flourishing network of people and organisations committed to take action on climate change.
- Education, awareness and behaviour change programmes are active and successful.
- A range of exemplar buildings exist to educate and inspire others in 'low carbon' and 'climate ready' building - both new build and retrofit.
- Awareness about the support available for carbon cutting improvements is high.
- Waste reduction, re-use and recycling have reduced total waste significantly, a process which is continuing.
- Awareness about our vulnerability and the risks from climate change is growing.
- The links between climate change and health are well understood with action being taken to ensure a safe and healthy Wirral in the face of climate change.
- Communities and organisations are taking actions that make them more resilient to current extreme weather events.
- 'Future proof' decisions are being taken that anticipate expected changes in the local climate later in the century.
- People routinely consider the knock-on effects of their decisions for climate pollution elsewhere.
- Cool, Wirral's climate change strategy developed back in 2013, made a difference. It has now been refreshed ready to steer the next phase of climate action.

1. REDUCING DEMAND FOR ENERGY AND MAKING WIRRAL MORE ENERGY EFFICIENT

With much of our energy coming from burning fossil fuels a key way to reduce our impact is to use less energy. Making Wirral more energy efficient means getting more from the energy that we use for heat and power. Doing this should not only limit climate disruption but also help keep bills down at a time when energy costs are rising.

AIM: MAKE WIRRAL MORE ENERGY EFFICIENT

Direction of travel needed

- Improve the fabric of buildings to stop unnecessary heat loss
- Upgrade heating systems and controls and make better use of existing ones
- Adopt more energy efficient plant, processes, appliances and lighting
- Design/adapt buildings to make use of natural light, passive heating and cooling
- Introduce district heating networks and combined heat and power systems
- Raise awareness about energy use and promote 'good housekeeping'

Foundation for action/potential support

- The Energy Company Obligation (ECO)
- The Green Deal
- Cosy Loans scheme
- Cosy Homes programme
- Wirral Council Home Energy Conservation Act 1995 Further Report 2013
- Higher standards to be phased in under the Building Regulations
- Liverpool City Region (LCR) Project Viridis partnership
- The Carbon Reduction Commitment Energy Efficiency Scheme (CRC)
- Regulations to require energy certificates and minimum standards for rental property
- The roll out of smart meters by utility companies by 2019
- The LCR Sustainable Energy Action Plan (SEAP)



Objectives to be met

- Contact the owners/occupiers of at least 95% of the remaining 'easy to treat' homes to highlight the opportunities for improvement
- Improve a minimum of 200 properties each year mainly in the east of Wirral using a range of funding streams including ECO investment
- Identify and refer vulnerable and 'fuel poor' households to available support via social, health, housing and education services and community and faith groups
- Lobby Government for support to improve take-up of energy efficiency measures including steps to make the Green Deal more attractive
- Target high energy use households in the west of Wirral with information about the Green Deal and other energy efficiency opportunities
- Create targeted locally relevant support to complement national energy efficiency opportunities taking into consideration existing barriers to local participation
- Develop local capacity in the skills to design, build and refurbish buildings to the highest energy efficiency standards by promoting education and training opportunities and linking them with local building programmes
- Bid to the LCR Local Enterprise Partnership or other sources of funding to work up the feasibility of potential heat networks in Wirral in support of the LCR SEAP
- Promote investment in 'Wirral Waters' as an exemplar sustainable energy opportunity
- Assemble the market evidence to identify areas where it is feasible to demand more than minimum energy efficiency standards through the planning system
- Develop targeted energy efficiency campaigns for places of work, leisure, education and worship
- Seek support for improving the energy efficiency of community buildings
- Assemble a set of 'good house-keeping' promotional resources to support energy awareness campaigns
- Create a mechanism to promote voluntary peer review of energy efficiency efforts in different organisations and to encourage the sharing of resources to support the work of energy/eco champions
- Create a directory of local suppliers of accredited energy efficient goods and services and promote these through an expo event
- Upgrade outdoor lighting fixtures and controls including street lights
- Create a Wirral-focussed energy efficiency campaign linked to the roll out of smart meters
- Pilot a 'smart grid' in at least one Wirral community

YOUR ACTIONS: What could you do to help make Wirral more energy efficient?

2. MEETING MORE OF OUR ENERGY NEEDS FROM RENEWABLE SOURCES

Gradually weaning ourselves off fossil fuels, such as oil, gas and coal in favour of energy from more renewable sources should help promote greater self-reliance. It may also help limit our exposure to price volatility in world energy markets.

AIM: GENERATE AND SOURCE MORE OF OUR LOCAL ENERGY NEEDS FROM RENEWABLE SOURCES

Direction of travel needed

- Exploit new renewable energy opportunities on and off-shore
- Purchase more energy from renewable sources

Foundation for action/potential support

- The Feed-in-Tariff (FiT)
- The Renewable Heat Incentive (RHI)
- The LCR 'Project Viridis' partnership
- Investments made in existing dock/maritime assets and skills to support off-shore wind energy
- Collective energy supply 'switching' campaigns
- The Green Deal
- The Green Energy Training Centre on Wirral International Business Park.
- LCR Sustainable Energy Action Plan (SEAP)
- The On-Farm Anaerobic Digestion Fund



Solar PV installation, Oval Sports Centre

Objectives to be met

- Create a renewable energy co-operative to pool local investment
- Identify potential sites for solar energy investment
- Establish a small-scale wind turbine trial
- Identify the potential for the use of bio-mass heat and power in parks and countryside facilities
- Promote the availability of support to establish the feasibility of on farm anaerobic digestion plant and explore other opportunities to produce biogas from wastes
- Highlight the availability of incentives to support installation of micro-renewable energy including FiTs and RHI
- Promote the use of biomass fuels in off-grid locations and raise awareness about the use of correct appliances in smoke control areas
- Win further resources to develop Wirral as a centre of excellence for wind energy
- Promote Wirral's value as a location for investment in emerging renewable energy technologies
- Build local skills to assess, install and service renewable energy equipment by promoting education and training opportunities and linking them with local renewable energy investments
- Create a directory of local suppliers and installers and promote them through an expo event
- Highlight renewable energy tariffs in collective switching and related campaigns

YOUR ACTIONS: What could you do to help meet more of our local energy needs from renewable sources?

3. MAKING USE OF MORE SUSTAINABLE MEANS FOR TRANSPORT

With better facilities, more integrated travel options, new technologies, novel fuels and new infrastructure to support walking and cycling it should be easier and cleaner to get around Wirral.

AIM: USE MORE SUSTAINABLE MODES OF TRANSPORT, MORE FUEL EFFICIENT VEHICLES AND LESS POLLUTING MEANS OF GETTING AROUND

Direction of travel needed

- Raise awareness of the advantages of sustainable travel for people and goods
- Safer and more convenient routes for cyclists and pedestrians
- More secure cycle parking at public transport interchanges, workplaces, education establishments, retail and leisure facilities
- Increase the proportion of low-emission, fuel-efficient vehicles within the wider 'fleet' including electric and alternatively fuelled models
- Provide more electric vehicle charging points and fuelling points for 'alternative' fuelled vehicles to cater for the growing number of these vehicles
- Ensure there are regular public transport services and straightforward connections between them and other modes of transport
- Improve information about transport options and connections between them
- Create tickets which are convenient and affordable for entire journeys
- Make railway stations, bus stations and shelters easier to use, more comfortable and safer.
- Raise awareness of smarter fuel-efficient driving

Foundation for action/potential support

- The third Merseyside Local Transport Plan (LTP3)
- The Merseyside Transport Partnership
- Wirral Core Strategy Local Plan
- Wirral Council's Travel Solutions Team
- Wirral Council's Business Travel Support Team
- Merseyside Travelwise
- The planned introduction of smart card ticketing in Merseyside
- Bus Quality Partnerships
- Office for Low Emission Vehicles (OLEV)
- The emerging LCR e-mobility strategy
- The development of an LCR active transport strategy
- The 'Bike and Go' railway station cycle hire initiative
- The Safer Routes to School programme



Merseyrail Wirral Line

Objectives to be met

- Establish a Wirral cycle route network map and develop the network
- Promote cycle skills training, cycle maintenance and cycle security measures
- New 20 MPH zones in residential areas to improve pedestrian and cycle safety
- Run an awareness campaign to discourage pavement parking and take enforcement action where necessary to improve the pedestrian environment
- Ensure that the majority of households are aware of journey planning tools
- Develop travel plans at key employment sites, leisure facilities and retail centres
- Complete the introduction of secure cycle parking at all Wirral railway stations
- Introduce local bus quality partnerships to extend the co-ordination of timetables and ticketing between operators
- Promote the development and uptake of flexible ticketing options and ensure the introduction of new ticket systems include consideration of the opportunities for new flexible ticket products.
- Establish a network of publicly accessible electric vehicle charging points with at least one rapid charger to serve the strategic road network
- Promote the availability of 'alternative' fuels at filling stations through online maps
- Create a directory of local suppliers of alternative fuelled vehicles and vehicle converters and promote these through an expo event
- Promote smarter driving tips and techniques
- Promote car sharing for journeys when applicable

YOUR ACTIONS: What could you do to make use of more sustainable means of transport?

4. REDUCING 'INDIRECT' CLIMATE POLLUTION

Decisions about where we live and work, what we buy and eat and what we throw away can all have indirect implications for climate pollution. By thinking about these wider implications we can often make better decisions that help cut pollution.

AIM: REDUCING THE INDIRECT NEGATIVE IMPACTS THAT OUR DECISIONS HAVE FOR CLIMATE POLLUTION IN WIRRAL AND ELSEWHERE

Direction of travel needed

- Spread environmentally-informed procurement practice
- Shorten supply chains to reduce unnecessary travel and promote the procurement of local goods and services
- Reduce the energy intensity of the food we eat by promoting local and seasonal food where this makes sense and by reducing unnecessary meat consumption
- Reduce waste, promote re-use and maximise recycling of materials that would otherwise be wasted
- Consider the sustainability implications of strategic decisions
- Promote land use patterns and technologies that reduce the need for motorised travel, support local food production and consumption, and limit waste to landfill

Foundation for action/potential support

- Good practice guides to sustainable procurement
- The Public Services (Social Value) Act 2012
- Invest Wirral and its business networking services
- Wirral's growing local food movement
- The development of the local food programme
- 'Resources Merseyside' - the Joint Recycling and Waste Management Strategy
- The Merseyside Recycling and Waste Authority's community project funding
- Joint Waste Local Plan for Merseyside and Halton 2013
- ReciproCity Wirral
- Wirral's Core Strategy Local Plan



Local and seasonal food. Transition Town West Kirby.

Objectives to be met

- Host a green procurement fair to promote the greening of local supply chains and encourage the spread of environmentally sensitive procurement practice
- Promote local inter-trading to shorten supply chains through Invest Wirral and local trade associations
- Reduce the need to travel through online working or online meetings
- Create a recognisable brand to aid the development of Wirral's local food movement and promote the consumption of local and seasonal produce
- Develop community cultivation on suitable vacant or underutilised land through: asset transfer to create allotments, land sharing and cultivation agreements
- Create a directory of local food producers and promote these through an expo event
- Ensure climate change issues are reflected in Wirral's local food programme
- Highlight the benefits of reducing consumption of meat
- Bring forward new initiatives - and strengthen existing ones - to reduce waste and encourage the re-use of materials
- Encourage the use of sustainability appraisal to ensure climate sensitive decision making and utilise the skills of stakeholders in the Wirral Climate Change Group
- Ensure the policies of Wirral's Core Strategy Local Plan (and related supporting documents) that help minimise climate pollution are implemented

YOUR ACTIONS: What could you do to help reduce 'indirect' climate pollution?

5. ADAPTING TO UNAVOIDABLE CHANGES IN WIRRAL'S CLIMATE

Some climate impacts are unavoidable due to pollution already in the atmosphere. Wirral already experiences disruptive weather events. These are predicted to become more commonplace. By preparing for change we can ensure Wirral remains open for business whatever the weather.

AIM: IDENTIFY RISKS AND VULNERABILITIES FROM EXPECTED CHANGES AND BRING FORWARD PLANS AND ACTIONS TO LIMIT NEGATIVE IMPACTS AND IMPROVE RESILIENCE

Direction of travel needed

- Raise awareness of the likely changes in the local climate - higher summer temperatures with prolonged dry spells and increased frequency of heat waves; warmer, wetter winters; and more storms and floods exacerbated by a rise in sea levels - and their impacts
- Promote the advantages of preparing for change and the tools to help
- Develop an understanding of the main risks, vulnerabilities and uncertainties and manage them in a balanced way
- Upgrade critical physical infrastructure to cope with expected changes
- Create awareness about the benefits of natural 'green and blue infrastructure' to limit negative impacts and take steps to harness these benefits
- Promote behaviour change to adapt to likely changes
- Build capacity in organisations to enable continuity of business and services
- Develop support networks in communities to improve responses to emergency situations and support vulnerable groups

Foundation for action/potential support

- The UK Climate Impacts Programme (UKCIP) adaptation tools
- The Environment Agency's 'Climate Ready' programme
- CLASP - the climate change local authority support programme
- Wirral Core Strategy Local Plan
- Wirral Coastal Strategy
- The Wirral Joint Strategic Needs Assessment (JSNA) to identify local health needs
- Green Infrastructure to Combat Climate Change: A Framework for Action in Cheshire, Cumbria, Greater Manchester, Lancashire, and Merseyside
- The Liverpool City Region Green Infrastructure Framework
- Wirral's planned green infrastructure strategy
- The Wirral Green Streets project
- Wirral's emerging Parks and Open Spaces Strategy
- Wirral parks and countryside 'friends of' groups
- Local emergency planning and resilience programmes
- The Wirral Emergency Volunteers scheme
- Experiences gained setting up local flood groups



Rainwater harvesting. Raincatcher products and services Ltd, Wallasey.

Objectives to be met

- Develop a co-ordinated adaptation response through Wirral's climate partnership
- Engage key stakeholders in a risk assessment process using UKCIP's adaptation wizard to identify risks, vulnerabilities and priority actions
- Produce community-specific adaptation information
- Promote awareness of the links between climate change and health so that local health planning takes climate issues into account
- Promote the use of porous materials in gardens, driveways and landscaping schemes and the use of green roofs and walls in buildings to limit run-off, provide shade and ameliorate temperatures
- Promote water saving practices and the use of rainwater harvesting systems
- Raise awareness of the role of the natural environment in combating adverse impacts in order to support investment in Wirral's green infrastructure and green and open spaces strategies
- Seek funding to extend Wirral Green Streets-type projects in the east of Wirral
- Run a campaign to promote engagement with the Environment Agency's 'Climate Ready' programme
- Develop community capacity to respond to weather events
- Create a directory of local firms that provide goods and services that help with adapting to climate change and promote them at an expo event

YOUR ACTIONS: What could you do to adapt to unavoidable changes in Wirral's climate?

6. BUILDING CAPACITY FOR ACTION

To help build capacity for action there is a need to strengthen local partnerships, build networks and expand awareness and education initiatives. With more people on board and better co-ordination we can make a bigger impact.

AIM: BUILDING CAPACITY FOR ACTION BY STRENGTHENING LOCAL NETWORKS AND PARTNERSHIPS AND BY DEVELOPING WIDER AWARENESS AND EDUCATION INITIATIVES

Direction of travel needed

- A strong independent voice to champion action and win investment to support it
- Involve stakeholders from all sectors
- Raise awareness about how people and organisations can play their part
- Showcase real-world examples of best practice to inspire wider action
- Foster connections between groups active in different places - within and beyond Wirral
- Create opportunities for people to connect with one another to share information and develop new projects
- Develop local climate-related educational resources
- Ensure climate education is part of life-long learning and vocational training

Foundation for action/potential support

- Wirral Climate Change Group
- CRed Wirral carbon reduction pledge campaign
- Super-homes network and Green Open Homes network
- Eco Schools programme
- Project Dirt social network
- Low Carbon Communities Network and Transition Towns Network
- Wirral Environment Network
- Faiths for Change
- Community Action Wirral
- The Green Energy Training Centre on Wirral International Business Park



Apple Avenue. Transition Town West Kirby.

Objectives to be met

- Create an independent Cool Wirral Partnership from the Wirral Climate Change Group
- Develop a Cool Wirral campaign to promote the desirability of climate actions and gather pledges in support of the strategy from individuals and from organisations in the public, private, voluntary, community and faith sectors
- Develop a network in support of Cool (building on existing networks) and provide opportunities for interaction between participants through an e-bulletin, social media and public events
- Encourage the formation of low carbon communities/transition towns-type groups to promote climate action at community level with at least one group in each constituency committee area
- Develop a network of exemplar eco buildings including examples of different building types with at least one Superhome in each constituency committee area and promote 'open house'-type events
- Expand the number of good practice case studies on-line and encourage connections between organisations in different parts of the borough to spread good practice and avoid 'reinventing the wheel'
- Develop climate change-related resources to support local 'eco' work in schools
- Develop leading schools and community buildings as hubs for wider community learning on climate change
- Develop a programme of climate-related life-long learning opportunities
- Ensure that vocational training is in place to ensure the skills needed for the transition to a low carbon economy can be found locally

YOUR ACTIONS: What could you do to help build capacity for action?

MOVING FORWARD AND STAYING ON TRACK

TO ENSURE PROGRESS IS MADE WITH THE STRATEGY ACROSS ITS SIX AIMS:

- The Cool Wirral Partnership will be the lead body to champion implementation, win investment, co-ordinate action, and monitor progress;
- An action plan will be put together and maintained on a rolling basis. This will include details of actions identified by partners in Cool Wirral and pledged action from the wider community;
- Leaders will be identified to encourage action and report progress, or barriers to it, via the Cool Wirral Partnership;
- Measures of success will be identified for each area of action and an annual 'score card' to report progress will be published online and shared with key partners;
- Relationships will be developed with the new constituency committees being developed by Wirral Council and LCR Local Enterprise Partnership
- Barriers to progress will be reported to the Public Services Board (the executive of Wirral's Local Strategic Partnership) where relevant
- The creation of a replacement strategy will begin in four years time to ensure a seamless transition to a new framework;
- You are asked to identify and pledge actions in support, the next part 'Putting Cool into practice' may help you; and
- You are asked to implement your pledged actions and keep in touch via the Cool Wirral network.

PUTTING COOL INTO PRACTICE



Install insulation

1. REDUCE DEMAND FOR ENERGY AND MAKE WIRRAL MORE ENERGY EFFICIENT

As an individual/household

- Check home is insulated to modern standards - add top-up loft insulation, insulate cavities and draught-strip around windows, doors and letter boxes if needed
- Replace halogen and tungsten bulbs with lower energy CFLs and LEDs where possible
- If you have an older boiler look into replacing it with a more efficient model
- When appliances need replacing choose the most energy efficient models
- Ring the local energy efficiency advice line - 0800 043 0151 - to get the latest information and details about support that may be available to help you.
- Check heating controls - learn how to use existing controls and/or upgrade them to give you more control over comfort
- Learn to use the new energy monitor when your energy provider installs a smart meter in your property

In your community

- Refer your relatives, neighbours and friends to available support via the local energy efficiency advice line - 0800 043 0151
- Make sure your school, faith group or club is actively promoting energy efficiency and takes part in planned awareness campaigns

At work

- Get your organisation to participate in energy efficiency programmes and campaigns
- Volunteer to be an energy/eco champion and participate in local initiatives to share best practice
- If your company provides energy efficiency-related goods and services make sure they are featured in the planned local directory and expo event/s
- If you work in the building sector make sure you can take advantage of new opportunities relating to energy efficiency by participating in relevant accredited training programmes for the Green Deal

2. MORE RENEWABLE ENERGY

As an individual/household

- Switch to a renewable energy tariff
- Consider becoming part of the proposed renewable energy co-operative
- Find out whether you have a suitable site to install renewable energy - such as solar power, solar heating, wind, or biomass
- If you do, find out whether the feed-in tariff or renewable heat incentive could help you

In your community

- Get your school, club or faith group to switch to a renewable energy tariff.
- Find out whether your school, faith group or club has a suitable site for a renewable energy installation
- If they have, look into possible ways to support this, including the proposed renewable energy co-operative

At work

- Get your employer to switch to a renewable energy tariff
- Find out whether your workplace has a suitable site for a renewable energy installation
- If it does, look into possible ways to support this, including the proposed renewable energy co-operative
- If your company provides renewable energy-related goods and services make sure they feature in the planned local directory and expo event/s
- Explore whether your company's goods and services might contribute to establishing Wirral as a centre of excellence in off-shore wind power
- If you work in the building sector, make sure you can take advantage of new opportunities relating to renewable energy by participating in relevant accredited training programmes such as MCS and Green Deal



Train in green energy. Stiebel Eltron UK Ltd, Bromborough



Get on your bike!

3. MORE SUSTAINABLE TRANSPORT

As an individual/household

- Consider the options to walk and cycle more - familiarise yourself with available routes and cycle parking
- If you haven't used your cycle for a while, get it checked out and book yourself onto some refresher training or a suitable guided bike ride
- If you are new to cycling book yourself onto a cycle training course
- Familiarise yourself with the public transport services and journey planning tools available to you
- Get a Walrus Smart Card when available to make it easier to use public transport
- If you drive, learn a smarter energy efficient driving style
- If you are driving and others are travelling to the same destination offer them a lift
- Consider getting your petrol vehicle converted to run on LPG
- If replacing your vehicle consider the switch to electric, or choose a low carbon vehicle that will cost you less in road tax

In your community

- Make sure your school, faith group or club has a sustainable travel plan in place - is information about local public transport on hand? Are there secure places to leave a cycle?
- Find out whether there are any local community facilities where publicly accessible electric charging points could be introduced
- Apply for OLEV funding to support the implementation of electric charging facilities

At work

- Make sure your workplace has a travel plan in place - if it doesn't contact Merseyside Travelwise or Wirral's Smarter Choices team
- Make sure your workplace provides information about access by public transport, cycling and walking - not just access by cars
- Make sure your workplace has adequate secure cycle parking in place
- If your workplace has a fleet of vehicles, explore the opportunities to use electric or alternative fuelled vehicles as part of the fleet
- Promote smarter driving tips generally and promote training for those who drive in the course of their work
- If your workplace supplies or converts alternative fuelled or electric vehicles in Wirral make sure that it is featured in the planned local directory and expo event/s
- Does your workplace have a suitable site for electric vehicle charging points?



Reduce, Re-use, Recycle

4. LESS INDIRECT CLIMATE POLLUTION

As an individual/household

- Consider the overall cost of the goods and services you buy not just the initial purchase price
- Favour energy efficient, environmentally sensitive products
- Choose local goods and services
- Choose local, seasonal and less energy intensive produce - support local farmers markets and shops
- Grow some of your own food or take part in a local food project
- Consider eating less meat as part of a balanced diet
- Avoid products with excessive packaging
- Support local waste reduction and reuse campaigns and projects such as Love Food Hate Waste, Recipro City and Community Repaint
- Recycle the waste you can't avoid or re-use

In your community

- Make sure your school, faith group or club has a sustainable procurement policy favouring the purchase of local and environmentally sensitive supplies
- Look into your school, faith group or club's approach to waste. Make sure it has a waste minimisation policy and actively seeks to reduce waste, promote re-use and maximise recycling. Make sure it considers using local projects Recipro City and Community Re-paint as a source of supplies
- Explore the possibility of bidding for funding from the Merseyside Recycling and Waste Authority to support a community waste minimisation project
- Look into whether your school, faith group or club has space for food growing, if so, link-up with a local food project, or start one

At work

- Make sure your workplace has a sustainable procurement policy favouring the purchase of local and environmentally sensitive supplies
- Ensure your workplace participates in Invest Wirral's business networks and makes links with local companies in an effort to shorten supply chains
- Look at your workplace's approach to waste. Make sure you have a waste minimisation policy and actively seek to reduce waste, promote re-use and maximise recycling
- If your work is in the construction sector, make sure that surplus materials are kept in use by using local services such as those provided by Recipro
- Look into whether your work site has space for food growing and, if so, explore the possibility of linking with a local food project
- If your workplace produces food locally make sure it is signs up to Wirral's planned local food brand, is in the local directory and takes part in the expo event/s

5. BETTER ADAPTED TO UNAVOIDABLE CHANGES

As an individual/household

- Find out if your home is at risk from flood and if it is, take precautionary action to make it more resilient. You can view flood risk maps for your locality via: www.environment-agency.gov.uk
- Re-model your garden and driveway to increase vegetation and replace impervious materials with porous surfaces
- Be aware of your water use and adopt good housekeeping practices to save water
- Fit water saving devices in your home and use a water butt to water your garden

In your community

- If your home is in an area at risk from flooding, join or help set up a local flood group
- Consider joining the Wirral Emergency Volunteers
- Join/help set up a local park 'friends of' or a practical conservation group
- Look into ways your school, faith group, or club could increase natural vegetation cover in its grounds and make hard surfaces more permeable
- Make sure your school, faith group or club promotes water saving awareness and adopts water-saving practices

At work

- Find out if your business is in an area at risk from flood, and if it is, take precautionary action to make it more resilient
- Take part in the Climate Ready programme
- Use the UKCIP Business Area Climate Assessment Tool
- If your workplace offers goods or services that help adapt to climate change, e.g. water saving devices, make sure it is featured in the proposed directory and expo event
- Look into ways your workplace could increase natural vegetation cover in its grounds and make hard surfaces more permeable
- Make sure your workplace promotes water saving awareness and adopts water saving practices



Get involved in practical conservation

6. MORE CAPACITY FOR ACTION

As an individual/household

- Take part in the Cool Wirral network and make pledges in support of the strategy
- Join the Cool Wirral project on the Project Dirt website
- Consider retrofitting your home to save at least 60% of the carbon emissions to make it part of the SuperHomes network to inspire others
- If you have already made eco improvements to your home, volunteer it to be part of a Green Open Homes event

In your community

- Join, or help set up, a local low carbon community or transition-type group.
- Form links with similar low carbon or transition groups in other parts of Wirral and elsewhere and share good practice
- Get your group to join the Wirral Environment Network
- Get your group to join Cool Wirral project on the Project Dirt website
- Make sure your school is on board with the eco schools programme and uses the new local climate-related education materials when available
- Encourage your school to be a hub for wider community learning on climate change
- Make sure your faith group connects with local initiatives such as Faiths4Change
- Make sure your school, faith group or club make pledges in support of Cool Wirral, is part of the network, supports the Cool Wirral campaign and participates in planned events
- Could your group's premises become an exemplar eco building to inspire others?
- Could your group's premises be a hub for wider community learning on climate change?

At work

- Make sure your workplace joins the Cool Wirral network and Cool Wirral Project on the Project Dirt website
- Make sure your workplace makes pledges in support of Cool Wirral, is part of the network, supports the Cool Wirral campaign and participates in planned events
- Could your premises be an exemplar eco-building to inspire others?



Join a transition group. Transition Town West Kirby



APPENDIX: BACKGROUND INFORMATION AND CONTEXT FOR ACTION

1. REDUCE DEMAND FOR ENERGY AND MAKING WIRRAL MORE ENERGY EFFICIENT

The so called 'energy hierarchy' (Box 1.1) gives priority to using less energy. The cuts in pollution needed from reduced demand and improvements in energy efficiency are substantial but achievable. The Government have estimated that per capita demand for energy will need to reduce by between around a third and a half (from 2007 levels) in order to meet national carbon reduction targets¹. We'll all need to act to make these improvements.

Box 1.1: THE ENERGY HIERARCHY

1. Find ways to use less energy
2. What we do use, use it more efficiently
3. Get this energy from renewable sources
4. If we still need energy from non renewable resources get it in less polluting ways

Wirral's 140,000 households account for a large part of local energy consumption. The domestic sector used around 45% of the energy consumed locally in 2010². In the same year, the commercial and industrial sector accounted for around 30% of consumption and transport around a quarter (transport is discussed further in Part 4). What we do at home clearly matters.

Energy consumption across Wirral is not even. Residential areas with higher energy consumption tend to correspond with more affluent areas to the west and south. Areas with lower consumption tend to mirror those with lower income to the east. Many of the Borough's estimated 65,000 difficult-to-insulate solid walled properties, however, are found in the east³ where fuel poverty remains a problem.

Wirral has seen considerable progress with home energy efficiency improvements since the Home Energy Conservation Act 1995. We will need to maintain momentum, however, if we are to achieve climate targets. There has been substantial investment in social housing - which accounts for 15% of local housing stock - as providers have sought to meet the 'decent homes' standard. The latest data indicates social housing is currently the most energy efficient tenure in the borough - rated a 'C' on average⁴. Owner occupied and private rented accommodation - rated 'D' on average⁵ - have been targeted more recently through the Warmer Wirral programme (Box 1.2). This has helped narrow the 'gap' with social housing as previous to this private properties were rated 'E' on average⁶. There remain around 26,000 properties with un-insulated cavities and around 7,000 with less than 100mm of loft insulation⁷. Amongst private housing stock it is estimated that 17,900 have boilers over 15 years old. This presents a good opportunity for energy efficiency improvement.

Box 1.2: WARMER WIRRAL INSULATION

Wirral's free insulation programme ran between October 2010 and January 2013. During this time it supported the installation of over 24,000 insulation measures in around 20,000 Wirral homes. It was a three-way partnership between Wirral Council, local charity Energy Projects Plus and British Gas, who contributed around £5 million towards the cost of the insulation. The scheme's legacy includes around 350,000 tonnes of CO2 saved over the lifetime of the insulation.

Box 1.3:**THE ENERGY COMPANY OBLIGATION (ECO)**

consists of three different strands:
 (i) support for heating and insulation improvements for low-income and vulnerable households;
 (ii) support to insulate properties with solid-walls or 'hard-to-treat' cavities; and,
 (iii) support for insulation measures for people living in the UK's most deprived areas.

Nationally, mechanisms to support the installation of household energy efficiency measures have changed recently. The Energy Company Obligation (ECO) is the latest obligation on major energy companies to fund improvements in home energy efficiency (Box 1.3). Its introduction should bring forward more finance for harder to treat properties. The Green Deal is a new mechanism to enable loan finance for installation of energy efficiency measures at no up-front cost (Box 1.4). There has been some initial criticism about the attractiveness of Green Deal finance and it remains to be seen if the initiative will deliver the improvements needed.

In Wirral there remain some locally specific support programmes. These include the Cosy Loans scheme which helps with the installation of energy efficiency measures for around 70 households per year and the Cosy Homes heating upgrade programme which assists householders on benefits. Project Viridis is a partnership of local authorities and housing associations working together to pursue sustainable energy opportunities at the 'city region' level.

Some additional energy demand is anticipated through new residential development. If new-build targets are met there will be extra demand for up to 58,536 MWh of energy by 2025⁸. It is thus vital to ensure that new buildings are as energy efficient as possible. The Wirral Waters development in Birkenhead will be a major focus for such new build.

1. DECC (2012) *The Energy Efficiency Strategy: The Energy Efficiency Opportunity in the UK*
 2. DECC - *Sub-national total final energy consumption 2010*
 3. *Wirral Private Sector Stock Condition Survey 2008*
 4. *Wirral Area Mapping Project 2013*

5. *Wirral Private Sector Stock Condition Survey 2013*
 6. *Wirral Private Sector Stock Condition Survey 2008*
 7. *Wirral Private Sector Stock Condition Survey 2013*
 8. *The Liverpool City Region Renewable Energy Capacity Study in 2009*

Box 1.4: THE GREEN DEAL is a framework created by the Government designed to help encourage the uptake of energy efficiency measures in buildings. It enables improvements to be made without up front costs through a loan mechanism. Costs are recouped through charges added to a property's electricity bill paid back over time. The amount added to bills is offset by the savings from the improvements so that bills should not rise as a result. Unlike a conventional loan, finance is linked with the property's electricity meter, not directly to a person. Thus when the building's occupants change, the charge is picked up by the new bill payer who will benefit from the improvements.

To get Green Deal finance properties must first be assessed by an independent advisor. The occupier can then choose a Green Deal provider through which the identified improvements are made.

It has already been identified⁹ as a key opportunity for sustainable energy infrastructure through the creation of district heating system. The tightening of energy efficiency standards under Part L of the Building Regulations will see the introduction of zero carbon standards in new residential buildings by 2016 and new non-domestic buildings by 2019. It is already a legal requirement that rented property should have an energy performance certificate. By 2018 it will become unlawful to rent out a residential or business premise that does not reach a minimum energy efficiency standard. There needs to be investment if some local buildings are to meet the grade.

Information about energy efficiency in the industrial and commercial sector is less readily available than in the residential sector. There are currently no specific local business support programmes to assist with energy efficiency although a variety of regional and national programmes offer support and advice. Several local firms already offer products and services related to energy efficiency. The push to make Wirral more energy efficient should present some local economic opportunities. The poor state of energy efficiency in many community buildings was flagged up through the strategy consultation exercise. Wirral Council previously supported improvements in such buildings through a community energy efficiency grant programme. Unfortunately with funding constraints this is now closed to further applications.

A number of local organisations are actively trying to manage energy; some are required to do so by law¹⁰. Here the human factor remains a critical element with awareness campaigns and networks of workplace champions driving home the 'good housekeeping' message.

9. Liverpool City Region Sustainable Energy Action Plan, adopted by the LCR Local Enterprise Partnership

10. The Carbon Reduction Commitment Energy Efficiency Scheme (often referred to as simply 'the CRC') is a mandatory scheme to cut emissions in large public and private sector organisations including supermarkets, water companies, banks, local authorities and all central government departments

2. MEETING MORE OF OUR ENERGY NEEDS FROM RENEWABLE SOURCES

'Renewable' energy comes from sources that can be used time and again (wind, sun, water, wave, tide) or replenished relatively quickly (wood fuels, bio-mass). The UK Renewable Energy Strategy (RES) signalled the UK's intention to secure 15% of all its energy (30% of electricity, 12% of heat and 10% of transport) from renewables by 2020. We'll need to see a lot more energy generated from renewable sources to achieve this.

Wirral has good wind resources but local constraints currently limit prospects for large on-shore wind farms; there remains scope for smaller wind developments and micro-wind installations. Off-shore there is a growing renewable energy capacity with the development of the Burbo Bank Offshore Wind Farm. This currently comprises 25 wind turbines situated on the Burbo Flats in Liverpool Bay around 4.5 miles from Wirral. An application is currently lodged for the Burbo Bank wind farm extension. Wirral's existing dock and maritime industrial assets make it an obvious location for supporting the development of off-shore wind farms. There has already been public and private sector investment to make Wirral a centre of excellence in this growing industry.

Smaller scale renewably generated electricity has been given a boost since the introduction of the Feed-in-Tariff (FiT) - an incentive payment for

electricity generated from renewable means.

In Wirral the majority of installations supported through the FiT have been solar photovoltaic (PV) on residential properties. In 2010/11 there were 91 FiT supported domestic PV installations; by September 2013 this had grown to 1185¹¹. Thus far there have only been two FiT supported wind installations and one micro Combined Heat & Power (CHP) installation. The extension of the Renewable Heat Incentive - an incentive payment for heat created from renewable means - to include residential installations by spring 2014 will likely provide a boost for solar thermal and biomass installations. A centre to train installers to fit microgeneration equipment was established on the Wirral International Business Park in 2010 with investment from the Skills Funding Agency.

The use of wood fuels in a gasification boiler has been pioneered at Royden Park. Bio-fuel boilers using pellets are also found in Floral Pavilion, New Brighton and several local schools. Much of Wirral is designated a smoke control area where exempt appliances are needed if wood fuels are to be burned for heat and power. The Government have recently introduced The On-Farm Anaerobic Digestion Fund administered by WRAP to support the production of bio-gas and fertilisers from farm wastes.

11. Sub-national Feed-in Tariff Statistics, DECC, October 2013

3. MAKING USE OF MORE SUSTAINABLE MEANS FOR TRANSPORT

Transport presently accounts for around a quarter of local carbon pollution with most motor vehicles running on fossil fuels, chiefly petrol and diesel. Nationally the fuel efficiency of the vehicle 'fleet' is improving as newer efficient models replace older ones. Incentives such as cheaper road tax for low carbon vehicles are designed to encourage this shift. Variations in fuel taxes are also in place to encourage the adoption of 'alternative' lower polluting fuels. Liquefied petroleum gas (LPG) is probably the most commonly available 'alternative' fuel in Wirral with pumps at five local filling stations. Electric vehicles presently play a minimal role nationally and locally although major investments by government and manufacturers aim to change this. The Government's Office for Low Emission Vehicles (OLEV) currently offers plug-in car and van grants to reduce the purchase price of electric and plug-in hybrid vehicles. Several of the main car manufacturers have now developed electric and hybrid-electric vehicles and many of these are available via local dealerships. Thirty two diesel-electric hybrid buses have recently been introduced on cross river bus services between Wirral and Liverpool. OLEV also provides financial support towards the costs of installing electric vehicle charging points. A recent successful bid to OLEV will see the installation of charging points around the Liverpool City Region and neighbouring Cheshire West and Chester with 128 charging connections planned. It should be noted that the potential benefit of electric vehicles to climate change is tied to the 'carbon intensity' of the electricity used to charge them. We need to limit the amount of fossil fuels burned to produce the electricity needed to charge such vehicles.

The benefit of improving vehicle emission standards will be undermined if there is continued growth in vehicle use and traffic. Cars are presently the main mode of transport in Wirral¹² although access to them is actually relatively low and unequal¹³. Public transport remains a vital means for many people to access work, services and leisure opportunities. There remains significant opportunity for a shift in travel towards active non-polluting means such as walking and cycling. Currently many short trips which could be walked or cycled are not¹⁴.

Wirral has a wide-ranging network of bus and rail services including the Merseyrail Wirral Line that links West Kirby, New Brighton and Chester to Liverpool. That said fragmentation between the services of different operators - including connections between rail and bus and others modes of transport - can make door-to-door journeys more difficult than they could otherwise be. To counter fragmentation Wirral has recently benefited from two Bus Quality Partnerships - routes 1/2 between Liverpool and Chester and routes 471/472 between Liverpool and Heswall. Here the timetables of different operators are now co-ordinated and tickets made interchangeable between them. Merseyrail has recently introduced cycle hire facilities at several of its stations, including West Kirby and New Brighton, as part of the new national 'Bike and Go' initiative to enable onward travel by cycle. In addition, local park and ride facilities for cars have recently been improved with extra provision at Birkenhead North and Bidston rail stations. A project to develop secure cycle parking at Merseyrail stations is nearing completion. All Wirral Line railway stations currently have 'Secure Stations Scheme' accreditation. The scheme managed by the Department for Transport and British Transport Police sets railway station design and management safety standards for crime reduction. Unfortunately the plan to introduce a 'smart-card'-based ticketing system in Merseyside under the name of the Walrus Card has been delayed. Electronic ticketing of this nature may help create more flexible ticketing opportunities in the future.

Merseyside's third Local Transport Plan (LTP3) sets out the transport strategy for Merseyside and as such provides the main context for investment in sustainable travel. Goal 2 in LTP3 specifically aims to address climate change. The goal is to 'provide and promote a clean, low emission transport system which is resilient to changes in climate and oil availability'. Several sub-regional strategies are in development to shape action in more specific areas including the LCR e-mobility strategy and LCR active transport strategy. Wirral Council sets an annual programme of works in support of LTP3 to improve conditions for motorists, cyclists and pedestrians. The Wirral Core Strategy Local Plan contains

policies which support the provision of sustainable transport infrastructure and development patterns which reduce the need to travel. Part 5 says more on making decisions that help reduce the need to travel.

Beyond improvements in the physical environment to favour sustainable travel, Travelwise is Merseyside's travel awareness campaign. It promotes the benefits of walking, cycling, public transport and car sharing and supports the development of school and workplace travel plans. Wirral Council have a 'Travel Solutions' team to provide bespoke advice and information on travel from and within the east of Wirral. This work is funded following a successful Local Sustainable Transport Fund (LSTF) application

which seeks to help the public access employment destinations from a number of disadvantaged areas across Merseyside. Help is available for employers to offer sustainable transport options for current and prospective members of staff. It is also available to support prospective and current employees who are restricted in their ability to access employment through transport barriers. Motor traffic itself is often a deterrent to walking and cycling. Road safety campaigns exist to promote responsible driving (and awareness of legal requirements in this regard) including awareness of more vulnerable road users. Several residential areas now benefit from 20 mph speed limits. Wirral Council also supports a safer routes to school programme.

12. *Travel in Merseyside 2012 shows that private vehicles accounted for 55% of the morning peak hour traffic in Birkenhead*

13. *More than a third of households in Merseyside are without access to a car compared with around a quarter of households in the North West and Britain as a whole (DfT National Travel Survey, 2008/09). In some parts of Merseyside this rises to well over a half.*

14. *Around a quarter of all trips in Merseyside are less than a kilometre long and over two-thirds are less than five kilometres.*

4. REDUCING 'INDIRECT' POLLUTION

Purchasing decisions have many impacts including those on climate pollution. For example a conventional light bulb may be cheaper to buy but uses more energy and needs replacing sooner than a low energy equivalent. Wasted energy and materials mean more pollution and cost. To limit indirect impacts, several local organisations have developed environmentally sensitive procurement policies and practices. For example, Wirral Council was a partner in dCarbonNW in which suppliers were encouraged to assess and reduce their carbon footprint.

Shortening supply chains can limit climate pollution by reducing unnecessary transportation. Locally, Invest Wirral promotes inter-trading between businesses through its networks. Competition regulations make it difficult for public sector organisations to favour local businesses, although the new Public Services (Social Value) Act 2012 may provide some scope to secure local benefits.

The way our food is produced can be particularly energy intensive, leading many to question its long term sustainability. Wirral has seen the recent development of a 'local food' movement with a variety of initiatives aimed at encouraging and celebrating local and seasonal food. Regular farmers markets now operate in New Ferry and West Kirby. Growing demand for allotments has seen new sites brought into use - although Wirral still has below average allotment provision¹⁵. Several projects inspired by the Incredible Edible Todmorden have been developed. These make use of publicly accessible land to grow fruit, salads and vegetables which can be freely harvested.

Whilst local and seasonal food has some potential to help reduce climate impacts, it should not obscure the need to consider the overall energy intensity of food production. Here the importance of shifting food culture away from diets based on an excessive consumption of red meat needs greater recognition. Livestock production for meat can be particularly energy intensive with emissions associated with the production and processing of feeds, digestion by cows and the decomposition of manure. There have been some local efforts to promote the 'Meat Free Monday' message and encourage people to pledge

to eat less meat. The development of a local food programme presents an opportunity to introduce climate-related issues.

Waste presents a potentially double blow for climate change. Not only are raw materials - and the associated energy to extract them - wasted, but land-filled materials can break down to release methane a potent greenhouse gas. There has been a sea-change in the way that waste is managed to avoid the rising costs of landfill which is now taxed and regulated to reduce its prevalence. Locally, the introduction of new domestic recycling collection services alongside public information campaigns have led to a rapid rise in recycling rates. Efforts to reduce waste have been less high profile but are of rising importance. The future direction for waste management is set out in Resources Merseyside - the Joint Recycling and Waste Management Strategy for Merseyside. This promotes action at all steps of the waste hierarchy. It gives greater priority to avoiding waste and to promoting re-use of material. Wirral Council is a part of the Love Food Hate Waste campaign to limit food waste. There have also been efforts to promote re-use with the 'swap days' hosted by Wirral Environment Network. The Community Repaint scheme which encourages the re-use of surplus paint has recently moved to the ReciproCity facility in Wallasey. ReciproCity encourages the re-use of surplus building materials. The Merseyside Recycling and Waste Authority has a community project fund to support local waste minimisation projects.

A criticism levelled during the strategy consultation process was that strategic decisions - locally and nationally - often conflict with one another. In this context, the wider use of sustainability appraisal and similar tools could help to ensure more climate sensitive decision making and avoid the emergence of contradictory policies. Sustainability appraisal has been used to inform various statutory documents locally, but its use could be extended.

Land use planning has a key role in influencing indirect emissions. For example, the layout and density of our built environment influences travel decisions. Wirral's emerging Core Strategy Local Plan aims to limit these climate impacts.

5. ADAPTING TO UNAVOIDABLE CHANGES IN WIRRAL'S CLIMATE

It is no longer sound to make long-term decisions on the basis of existing weather conditions. We need to adapt to the unavoidable changes expected in order to avoid the costs of disruption. By 2015, Government envisages that all priority sectors will incorporate climate risk management into their business decision-making to protect critical infrastructure.

Wirral organisations need to be prepared too!

A variety of tools are available to assist with such preparations including those from UKCIP and The Environment Agency.

Some weather events in Wirral already cause disruption¹⁶. The frequency of disruptive events is expected to increase. In the future, Wirral is likely to experience:

- Higher summer temperatures with prolonged dry spells and increased frequency of heat waves;
- Warmer, wetter winters; and
- More storms and floods exacerbated by a rise in sea levels.

The prospect of higher summer temperatures may seem appealing but there will be a down-side if we don't adapt our activities and environment to cope with the heat. Previous heat waves have resulted in heat-related deaths and illness - with some groups in the population particularly vulnerable. A long-term shift to higher temperatures will likely herald new patterns of disease.

As longer dry spells and drought become more common we will need to adjust to a greater scarcity of water and use what we have more wisely.

A recent water cycle study¹⁷ highlighted a number of areas where water supply, sewer and wastewater treatment capacity may hinder development opportunities.

Heat and drought combined, will impact on food production and wildlife and habitats in addition to posing constraints on development. Wild fires already pose a threat at some countryside sites and these fires are likely to increase.

Ironically, although we will need to cope with greater water scarcity, we will also need to get used to more flooding from more intense rainfall events. Flooding already causes disruption to businesses and communities and impacts on people's health.

As flood conditions become more common, we will need to find ways to be more resilient. Flooding is one area where there has been co-ordinated adaptive action driven by legislation¹⁸. Wirral Council was made the Lead Local Flood Authority (LLFA) and has since prepared a Preliminary Flood Risk Assessment (PFRA) to help provide a better understanding of flood risk. The Council's duties include responsibility for putting in place strategies for managing flood risk; sharing information and investigating flooding. A Local Flood Risk Management Plan is currently in development.

16. Wirral Local Climate Impact Profile Media Trawl

17. Wirral Water Cycle Study

18. Flood Risk Regulations 2009 and the Flood and Water Management Act 2010.

At present, around 11% of Wirral's land area is at risk from flooding. Parts of Wirral's coastline and the river valleys associated with the Fender, Birket, Arrowe Brook and Dibbin are identified as being at a high probability of flooding from the sea or from watercourses. There are also localised incidences of sewer and surface water flooding across the Borough. Much of north and west Wirral could be susceptible to groundwater flooding but in practice only isolated locations are actually likely to suffer. Planning policies aim to ensure new development does not place additional people or property at risk. A new coastal strategy has been drafted. Its preparation has involved an assessment of the works that may be needed to make existing coastal defences 'future proof'. It has been developed in the context of the wider North Wales and North West England Shoreline Management Plan. Some parts of the Wirral coast - from Gayton to Thurstaston Cliffs, between West Kirby and Hoylake and at Eastham, have a policy of no active intervention. In other parts, defences will need strengthening to cope with rising sea levels and storm events.

Resilience to climate impacts can be improved through 'green and blue infrastructure' (Box 5.1)¹⁹. Wirral's Core Strategy Local Plan includes a policy to encourage the provision of such infrastructure. A new green infrastructure strategy for Wirral is expected to encourage more widespread action - a new framework was recently adopted for the Liverpool City Region. The Council's emerging parks and open space strategy recognises the adaptive function of such local green assets. There is generally less 'green infrastructure' in the more densely developed east of Wirral. Some programmes such as the Wirral Green Streets, which aims to plant more than a thousand trees in communities around the Wirral Waters development site - are helping to improve this provision.

Box 5.1:

GREEN AND BLUE 'INFRASTRUCTURE'

includes gardens, parks, verges, hedges, trees, productive landscape, green corridors, ponds, lakes, rivers, streams, floodplains and sustainable drainage systems. This infrastructure provides a range of climate related 'services' that can play an important role in climate adaptation. These services include: managing surface water and river and coastal flooding by reducing surface runoff, providing natural storage and slowing water movement; managing temperatures through evaporative cooling and shade; species adaptation - providing networks through which species can move; and reducing soil erosion.

19. *Green Infrastructure to Combat Climate Change A Framework for Action in Cheshire, Cumbria, Greater Manchester, Lancashire, and Merseyside*

6. BUILDING CAPACITY FOR ACTION

The importance of raising awareness, education and sharing good practice was raised repeatedly during the strategy consultation process. Local partnership work was also praised.

Several national networks exist to share and support community action on climate change including the Low Carbon Communities Network, Transition Towns Network and Project Dirt on-line social network for environmental projects. Locally Wirral has had a long-standing carbon reduction campaign to raise awareness and encourage action²⁰. The 'CRed Wirral' pledge campaign ran for four years. The campaign attracted over 2200 participants who have made over 6200 pledges. These equate to a reduction of over 1100 tonnes of carbon dioxide. Wirral Council has recently signed a commitment under the Local Government Association's Climate Local initiative. This gives it access to learning from a wider network of local authorities committed to take climate action.

There are a variety of local initiatives to support sustainability education both in schools and beyond. Wirral Council, for example, currently support local schools to participate in the national Eco Schools programme. The Council also offers a specifically designed support service to assist schools with energy awareness and energy management. Some local charities such as Wirral Environment Network and Faiths4Change deliver climate-related educational interventions for schools children, community groups and adult learners.

The desirability of having exemplar eco buildings was a common suggestion made at the strategy consultation workshops to help raise awareness and inspire action. Whilst there are eco-innovations in many Wirral buildings few are openly illustrated. One current exception is the eco-building at Tam O'Shanter Urban Farm which includes interpretive panels that highlight its eco-features. There are currently no Wirral examples in the national Superhomes network. This is an expanding network of energy aware households who have refurbished their homes to be at least 60% less reliant on fossil fuels. Members of this network periodically open their homes to inspire others to do low carbon renovations. The recently formed Green Open Homes network provides advice on running open homes-style events to show case ecological features in houses.

Co-ordinated action on climate change in Wirral has evolved overtime. A climate change strategy for Wirral Council was first approved by the Council's cabinet in June 2007. This strategy was developed by a group of council officers in response to a Wirral Council commitment²¹. Over time this group has grown into wider gathering of stakeholders. It now includes councillors, representatives from the NHS, the emergency services, waste, travel, and community and voluntary sector interests. The creation of **COOL** as a new strategy for Wirral, not just Wirral Council, is the product of this wider partnership effort. The Strategy's production and delivery provides an opportunity to develop and strengthen the partnership further.

20. Council and NHS backed

21. This strategy was produced after Wirral Council's commitment to the Nottingham Declaration on Climate Change

