

Our Low Energy Heritage

from past to present



Introduction

Our Low Energy Heritage is a project which looks at the lives of those in the London Borough of Sutton in times past and records the experiences of the older generation. This generation lived through times of shortage, when energy was less cheap and less available. We can use their knowledge and experiences to help us, and future generations, tackle issues such as climate change and an increasingly expensive, less plentiful energy supply.

The evidence that climate change is real and caused by human activity is now overwhelming¹. We now need to reduce our carbon emissions dramatically and quickly in order to avoid the risk of runaway climate change, and the potentially catastrophic environmental changes this will bring.

We must aim to reduce the levels of Carbon Dioxide in the atmosphere to below 350ppm² (parts per million) if we are to keep the conditions required for humanity to thrive. The amount of carbon in the atmosphere currently stands at 389ppm and is rising at 2ppm per year³.

Climate change aside, our fossil fuel resources are reaching peak production and will soon fall into decline. Over the coming decades the UK will be competing for ever diminishing supplies of oil and gas, trying to outbid the rest of Europe for increasingly expensive and scarce fuel. Whichever way we look at it, through choice or necessity, we will need to use less energy in the future.

Over the past one hundred and fifty years our energy use has increased dramatically. People who lived in times when energy was scarce used a range of skills to do what they needed in their low energy societies. Many of these skills are still useful now and could become essential in the low energy societies of the future.

This doesn't mean we need to go back to living the way we did in 1930, 1910 or 1860. In 2010 we now benefit from modern technology such as solar panels, wind turbines and district heat and power schemes. Technologies like these will help us to create low energy communities in the future with a better standard of living and a quality of life perhaps better than today. However, many of the skills our grandparents and great grandparents used on a daily basis have almost been forgotten and re-learning them might not only help us to create a low energy future but also lead to a greater sense of satisfaction for us all.

This book is the result of months of voluntary research into the way life in the London Borough of Sutton has evolved over the years, and contains some of the memories collected at dozens of reminiscence sessions with elders in the borough. These sessions have given us an insight into the way their families lived when they were younger and have highlighted ways in which their skills might be of use now and in the future.

The book also contains suggestions and information to help us live a more energy conscious lifestyle today. Those elders who lived through the wartime rationing of 1940 to 1954 had to rise to the challenge of difficult times. Creating our low energy societies of the future will be a challenge too and you might want to take the carbon challenge in this booklet to see whether you can live on a carbon ration for a month - or even a year! (see back cover for details).

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Reminiscence session



Girls in Carshalton learn how to knit

Acknowledgements

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Organisations: All Saints Hackbridge, Bandon Hill Methodists, Bridge House Nursing Home, Brooklands Nursing Home, Carshalton Nursing Home, Cloverdale Day Centre, Eothen Nursing Home, Orchard House Nursing Home, Ryelands Nursing Home, The Avenue Nursing Home, Thomas Wall Close Sheltered Housing Unit, Todorach Nursing Home, Carshalton Boys Sports College, Carshalton High School for Girls.

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Energy in the Home

Gas

In 1856 Sutton Gas works was established. To make the gas, coal was heated so that it broke down into tar, coke and gas. The work was very heavy, hot and dirty, but gas changed the way many people lived. Those who could afford it started to light their houses by gas. Also more street lights were put up making it easier for people to get around in the dark. At first some people did not think they were necessary. A report in 1863 records complaints that the lamps are lit on moonlit nights. It was agreed that the lamps would be run for 200 nights a year from dusk to midnight, except for five nights around the full moon.

"You only wanted to heat the beds up, and we used to heat up bricks and cover them in a piece of old flannel sheet that had been torn up." Ena Kemble

"You would also have a blanket wrapped around your feet of a night time in bed to keep your feet warm." Else Collins

"It was very cold and the frozen ice patterns on the window were lovely but we only had one fire alight and we would all crouch round that and get "granny mosaic" legs." Jennie Rookledge

The Carshalton Gas Company was established in 1866 at The Wrythe. It was not until 1871 that inspectors were appointed to oversee the lighting of the 'hamlet of Wallington' by gas⁴.

Complaints about pressure and meters (frequently made) were invariably dealt with by a personal visit from, at least, the manager of the gas works, and, sometimes, from the chairman of the board himself. The directors were all local worthies, the secretary also acted as the door to door collector of accounts, and, undoubtedly, the enterprise was accepted as an integral part of the community's social life.

No concern was felt by the company about pollution of the neighbourhood. A brook which fed the Wrythe pond ran past the gas works; the company dammed it, in order to secure a supply of water for its gasholders.

Complaints by the local board about smells from the resulting stagnant water were ignored, and the directors were highly indignant when, in 1885, the local authority obliged the company to construct a rain water tank instead. Two years later it was foul water being discharged into the brook which caused the local board concern. The company protested the innocuousness of its effluent, but an analysis showed that it contained 6% of pure ammonia. The local board stopped up the pipe, and, once again, the directors were furious, this time because the blockage caused damage⁵.

Looking at national figures, domestic gas use has increased by 1836% since records began. Since the 1920s the average consumption per user has increased from 2684 kWh to a peak of 19,066 kWh in 2004, an increase of 610%. Domestic electricity use fell by 16.7% in the three years to 2007⁶.

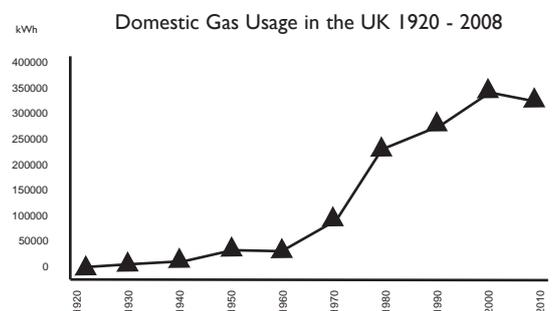
Electricity

Electrical Energy came quite early to the local area, when a large wooden wheel with iron plates was attached by order of Samuel Barrow, owner of The Grove in Carshalton from 1888, to an electricity generating plant⁷. The generators charged batteries, which supplied current to lighting installations in Stone Court and The Grove. This was a relatively early use of the technology.

General supply of electrical energy was first supplied in Sutton in March 1902 by the South Metropolitan Electric

"I remember the street lamps, when we used to come home from school, the man used to be going along, putting the gas on with his stick. And then during the war, I was in the country so it was dead black." Phyllis Wasyłowski

"We had a boiler in the kitchen which is where we ate and spent most of our time and did our homework. It heated water to the only radiator in the house which was in the bathroom which is where we all went to get dressed in the morning. The only other heat we had was the sitting room fire, which was wood, which we only used if we had a visitor." Janet Ringrose



Tramways and Lighting Company. The company also supplied energy in Carshalton, Wallington and Cheam. The electricity works adjoined the Sutton railway station and contained 600 kilowatts of plant. In October 1905, about 17,000 eight candle power lamps (equivalent) were connected to the mains⁸.

In 1915 the Electric Power Supply Committee found that 600 separate companies were supplying electricity to the country. In 1926 it was documented that London alone had 50 different electricity systems, with 24 different voltages and 10 different frequencies⁹. In 1948 the electrical service was nationalised, and the newly established Central Electricity Energy Board took control of electricity in England and Wales. The main reason for nationalisation of electricity was to ensure a supply of electricity for everyone in the austere conditions of post war Britain.

A large benefit of establishing the National Grid was to have interconnected electrical systems from which supply can be easily coordinated around the country. Matching the production with the demand requires a constant balancing act. If a power station is overproducing for its area, it is possible to turn down production in other areas of the country and divert power accordingly. Currently the total generating capacity of the grid is 20% higher than peak demand. This is to provide a cushion against any disruption in the service.

Increase in total electricity consumption in the UK has risen by over 9,000% since 1920, and has increased every year up until 2003¹⁰.

Energy in the household

The Electrical Association for Women acted as an advisory body and encouraged women to be consumers of electrical apparatus and to provide a platform for the expression of the woman's point of view on all matters relating to electricity. It brought engineers and housewives together, acting as a liaison between engineers who did not understand what women wanted and housewives who could not follow the technical language.

It illustrated the labour saving use of electrical appliances through a series of demonstrations and lectures. Branch Presidents held demonstrations in their homes and Dame Caroline (the director) constantly travelled in Britain and abroad providing advice and inspiration.

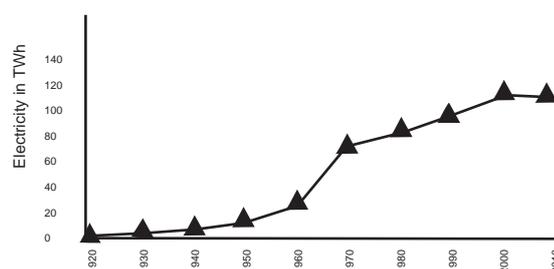
A Diploma in Electrical Housecraft was offered at Battersea Polytechnic and in 1933 the Electrical Housecraft School was opened in Kensington Court. The school demonstrated various systems of lighting and heating as well as many types of switches, plugs and outlets¹¹.

The problem of housework in the servantless household was the subject of study by a number of self-appointed female 'domestic engineers' in America and Britain. Mary Pattison, Christine Frederick and Lillian Gilbreth used time-and-motion studies of housewives' activities in the kitchen to devise a system of domestic management which would maximise productivity for the housewife for the minimum expenditure of energy and discomfort. The research recommended that full use should be made of modern gas and electric time and labour-saving kitchen appliances. The physical layout of the kitchen should be so arranged to reduce to an absolute minimum walking and

"We didn't have electric lights then, it was gas lights. You know, mantles."
Joyce Auton

"My cousins' house at Camberley was gas-lights and candles until 1957!"
Thelma Jones

Domestic Electricity Consumption in the UK 1920 - 2008



"There was a larder and there was a bowl in which mother put water and we put the milk in that and covered it with a cloth so that evaporation went on and the wet cloth kept the milk cold."
Janet Ringrose

"Gran was terrified of electricity, so she had no vacuum cleaner, and used a dustpan and brush to clean the carpets, spreading old tea leaves to lay the dust." Mary Bates

"The floors were covered in Lino so no need for a vacuum cleaner. Mum would put our few little mats over the clothes line and give them a good beating to remove any dust."
Trudy Simpson

movement between the cooker, food preparation surface, fridge and sink. Britain's most influential 'domestic engineer' was Caroline Haslett. She spent decades persuading women to use electricity in the home to save time and energy doing housework.

Pearson's Marvellous Steam Washer, first exhibited in 1862, was a washing machine heated by charcoal or gas. A handle turned its small cylinder. The Factotum, invented in 1893, had a gas heating element to boil the wash as the cylinder turned and converted into a crude version of a tumble-drier. Once the clothes had been washed out and rung, they were returned to the machine, shut in and rotated over warm air from the gas.

No drawing-room was complete without its sewing-box or table. In lower-income groups, it was not just the sewing for the family. For many women, the only way to make ends meet was to take in ill-paid 'piecwork', ruining their eyes and their health by sewing late into the night by inadequate light¹².

The vacuum cleaner did not become a portable household tool until well after 1900. Three massive forms of semi-industrial plant preceded it, the carpet-washer, a cleaner that forced air through carpets, and fixed installation vacuum cleaners.

"My job (as a child) was to polish the range and sandpaper the top. I had to scrub the bedrooms and I had to scrub all down the stairs."
Alma Edwards

"It was housework day on a Friday - clean the house from top to bottom." Hattie Bellinger

"I remember having my breakfast and my mother saying: 'Would you mind making your bed again?' and I said: 'But Mum I've already done it! I'll be late for school.' but being a nurse she made me go and do it properly." Doreen Eleftheriadis

Not until the construction of 'homes for heroes', built after the First World War, did appliances become part of daily life. In 1922 it was estimated that washing machines would last 20 years, today it's more like 7 years. Relatives were more likely to help out with the housework as families lived closer together reducing the need for modern appliances¹³.

Typical energy using products in the home:

1970s	2000s
Television	Televisions
Vacuum cleaner	Cable/satellite box
Electric bar heaters	Video players
Hi-fi music system	DVD player/recorders
Hairdryer	Portable music players
Electric kettle	Mobile phones
Washing machine	Hairdryers
Iron	Hair irons
Electric blanket	Electric toothbrushes
Radio	Wireless telephones
Sewing Machine	/answering machines
Cooker	Electric kettle
Cassette player	Smoothie maker
Fridge	Magimix
DIY appliance	Ice-cream maker
Toaster	Digital radio
Occasional Lamps	Mini hi-fi systems
	Washing machine
	Tumble dryer
	Dishwasher
	Games console
	Cappucino maker
	Digital clock radios
	Electric lawnmower
	Strimmer
	Microwave
	Electric ovens
	Electric hob
	Extractor fan
	Large fridge/freezer
	Drinks cooler
	Laptop
	Vacuum cleaner
	Personal computer
	Monitor
	Printer
	Scanner/fax
	Digital camera
	Electric shaver
	Steam Iron
	Juicer

The Future:

Britain is Europe's worst energy waster, with bad habits, such as leaving electrical appliances on standby, set to cost households £11bn by 2010¹⁴. Space heating, hot water, and appliances make up 10% of our carbon emissions¹⁵. Our houses are much more energy efficient than 60 years ago, but heating is still responsible for about 60% of domestic energy use - that's more than 140 million tonnes of carbon dioxide each year¹⁶.

In the future, fossil fuels will become more expensive and services are likely to be interrupted as demand outstrips supply. Changing our behaviour to save energy at home and work will become increasingly important as costs rise and fuel becomes less available.

To replace fossil fuels, energy is more likely to come from modern efficient local combined heat and power plants (CHP) rather than the inefficient centralised power stations we have now¹⁷ in which 70% of energy is lost as heat through cooling towers. Mechanical power is likely to be delivered almost entirely from electricity generated both from local CHP plants and renewable sources such as wind, tidal, solar and hydro. These will be in our own back yards so to speak.



Hot water solar panels on a roof in Wallington

...The Future continued:

At a domestic level, houses will use technology to maximise energy efficiency, and more visible metering will provide information on energy use, reminding us to save energy. New and existing buildings will be made more energy efficient.

To avoid peaks in fuel demand, which is more difficult to supply from renewable energy, we will see time sensitive pricing to encourage us to run appliances overnight when total demand is lower.

Using the PC for 1/2 hour per day

1 ration

Lighting the average house

4 rations

Using the toaster once a day

1 ration

Watching the TV 1/2 an hour a day

1 ration

Using the microwave 10 mins a day

1 ration

Using the fridge 24 hrs a day

8 rations

Using a hairdryer 10 mins a day

1 ration

Taking an electric shower or a bath once a week

1 ration

Boiling the kettle twice a day

1 ration

Using the dishwasher once a week

1 ration

Heating your home

5 rations

Vacuuming the house 1 hour per week

1 ration

Do your bit:

Use less energy: stop using standby mode on the TV and other electrical equipment and turn them off at the mains when you are not using them. Switch lights off in empty rooms, close windows when the heating is on, turn down the thermostat and put on an extra jumper and slippers to keep warm. Only heat the rooms you are using. Minimise the use of your tumble dryer - use a washing line.

Insulate more: Install draught proofing yourself: Fill gaps with newspaper, beading or sealant. Fit a hot water jacket that's at least 75mm (3") thick and save around £20 a year.

Cavity wall insulation could save you up to £160 each year and creates an even temperature in your home. 27 cm (10 inches) of loft insulation can save you between £180 and £220 a year. Double glazing cuts heat loss through windows by 50% and could cut your heating bill by £80 to £100 a year.

Buy with energy efficiency in mind: switch to energy saving light bulbs - they last up to 12 times longer than ordinary light bulbs, and each bulb you fit could save up to £100 on electricity over the bulb's lifetime¹⁹.

Choose an A or A* rated product next time you buy electrical equipment like a fridge or washing machine. Save up to a third on your heating bills with a high efficiency condensing boiler.

Switch to a green energy supplier: Change to a green tariff to reduce your emissions and protect the environment.

Install renewable energy technologies: solar water heating can save you money using free energy from the sun to heat your water and add value to your property. PV solar panels, wind turbines, micro combined heat and power, ground source heating and wood stoves are becoming increasingly popular.

Where to find more info:

South West London Energy Advice Centre:
Act on CO₂ 0800 512012 or enquiries@cen.org.uk
Coldbusters Energy Efficiency grants:
CEN - 020 8683 6600
Energysmart - a not-for-profit scheme to improve energy efficiency in the home: 0845 230 3320
www.energy-smart.org.uk/householder_default.aspx
Warm Front energy efficiency grants:
0800 316 2805
Green Energy tariffs:
www.ethicalconsumer.org/FreeBuyersGuides/energy-utilities/greenelectricitysuppliers.aspx

Top Energy tips:
www.carbontrust.co.uk/energy/startsaving/top_tips.htm
Energy saving products:
www.energysavingtrust.org.uk/Compare-and-buy-products
www.energyrating.gov.au
Solar Water Heating:
www.ecolocal.org.uk/project-detail.php?id=64
www.solarforlondon.org
Generate your own energy:
www.lowcarbonbuildings.com
www.microgenerationcertification.org
Community-Based Energy:
www.energysavingtrust.org.uk/cafe

Water in the Home

Before the mains water supply there were numerous wells and boreholes in the area that were sunk in the 19th century. There were 113 boreholes and wells in the borough, supplying good clean water where chlorination was only performed as a precaution. Most of these have now either been discarded or filled in²⁰.

In 1860, Mr Easton, upon a visit to the area, suggested the construction of a water works. George Barnes suggested the place of the water works to be built upon Marlin's pit, previously a supply of lime said to have been a source for the construction of St Paul's Cathedral. The place of this original site is on Carshalton Road in Sutton, where the water gardens housing is. The first reservoir was built at Brighton Road, it held 500,000 gallons and supplied 12,000 people.

"We didn't have a bathroom, we just used to have a big bath hanging on the wall and we all used to have our bath on a Friday night." Joyce Auton

"Everyone used the same bath water so whoever got there first got the clean water and you used to fight: 'Get out of it, you had it last week!'"
Hattie Bellinger

"Mondays was wash day and Saturday was bath day ready for Sunday. We bathed once a week in a tin bath by the side of the cooking range."
John Gallon

In 1871 the water works was incorporated into the Sutton District Water Company. This supplied water to Cheam, Sutton, Morden, Banstead, Woodmansterne, Ewell, Cuddington, Wallington, Carshalton and Beddington.

In 1895 Sutton waterworks well pumped 1,000,000 gallons a day, had three reservoirs with a total capacity of 1.3 million gallons. This supplied 40,000 people with water, pumping 300 million gallons of water annually.

By 1901, 2 reservoirs were added (Tadworth and Langley Park) which added a total 1,020,000 gallons capacity.

By 1907 a sixth reservoir was added at How Green, Woodmansterne, which had a capacity of 1.4 million gallons alone. Now, 50,000 people were supplied with water, pumping 600 million gallons of water. The total holding capacity in all the reservoirs amounted to 3,720,000 gallons. By 1909 there were two wells, one on Carshalton Road and another in Woodmansterne. In 1926 there is mention of a third well near Gander Green Lane²¹.

"The kitchen range heated the water. We used a mixture of wood and coal. I remember carbolic soap, I think my dad used to use carbolic soap. Mother used to swear by washing soda."
Ann Murrells

"I remember my mother lighting the geyser and there was always a big puff of blue out of the bottom."
Les Murrells

Between 1895 and 1907 water consumption went from 20.55 gallons per person per day to 32.88 gallons per person per day. Sutton and East Surrey Water today supply 640,000 customers with 35 million gallons a day. That works out to 54.69 gallons per person per day, just over 2½ times that of 1895²².

"Mondays were wash day. You used to have this great big copper in the corner of the scullery. You'd put the sheets in the copper and boil them up. Tuesdays was ironing day." Hattie Bellinger

"They had blue bags which went into the washing to give everything a blueish tinge to make everything look nice and white. I used to have to help out at home but my brother didn't. We used to wash big things in the bath and we used to get in and walk up and down." Shirley Tennant

"My Aunt was one of the first persons, in the 1930s, to have a washing machine in the village of Chipstead. It was a round tub and inside was simply a paddle that went too and fro."
John Priest

"I can remember my mother had a big wooden mangle outside on the concrete and weights at the side and wooden rollers and I put my fingers through it. Got my fingers mangled. I remember getting the iron hot on a gas stove." Joyce Auton

"If you wanted to put shirts through the mangle you used to have to take the buttons off, put the shirts through the mangle and then sew the buttons back on." Bill Rickman

The Future:

Scientists predict that the temperature in the UK will rise significantly by the year 2060²³. Already, the Environment Agency has identified the Thames Valley region as having the lowest amount of water available per person in the UK²⁴, so we all need to make sure we are using it wisely.

Do your bit:

Use less water: fix leaks. A dripping tap can waste up to 140 litres of water a week. Lag your pipes and leave your heating on a very low setting when you go away to avoid burst pipes.

Take a shower- A bath uses 80 litres of water compared to only 35 litres used by a shower. Be careful though, a power shower can use more water than a bath! Fit a water saving shower head or alternatively, share a bath with someone you love.

Fitting a Save-a-flush (a bag of harmless crystals) in your toilet cistern can save up to 1 litre per flush. That's a saving of nearly 2,000 litres per person per year. A Hippo (designed to work in toilet cisterns with a 9 litre flush or greater) could save up to 5,000 litres per person per year.

Wait for a full load before using the washing machine - a full load uses less water than 2 half loads.

Cooling water in the fridge means you don't have to run the tap for ages to get a cold drink. Only fill the kettle with enough water for your needs, this will reduce your fuel bills too.

Wash your car with a bucket instead of a hose.

Buy with water efficiency in mind:

products like sprays for your shower head and taps as well as water efficient appliances

Collect and re-use water: a water butt in your garden can collect rainwater that can be used on your plants and lawn. 'Greywater' (water that has been used within the home for washing and bathing) can be re-used for flushing the toilet or in the garden providing simple rules are followed. Never re-use water containing strong detergents, chemicals or household cleaning agents on plants.

Monitor your water use:

get a water meter. In most cases, when you have chosen to have a meter, at the end of the first year you can revert back to your unmetered charge if you are not happy with your metered bill.

Avoid flash floods: Keep your front garden for plants not your car. Hard surfaces can't absorb water and can change the microclimate of your street. Plant a tree. Tree canopies reduce rainstorm impact, making drains less likely to be overwhelmed. Trees are also highly 'carbon smart' and can help mitigate against climate change by absorbing CO₂ from the atmosphere into their roots, trunks, branches, leaves and seeds. Trees help to moderate the local climate keeping houses cool in summer and warmer in winter.

Using a non efficient shower
3x5 mins
1 ration

Washing hands twice a day
1 ration

Filling the bath 3/4 full once a week
1 ration

Using a non efficient toilet flush 21 times
1 ration

Using a non efficient dish washer 2 x week
1 ration

Using a non efficient washing machine 4 times
1 ration

Washing up in a bowl once a day
1 ration

Washing veg under a running tap twice a week
1 ration

Brushing teeth with tap running once a day
1 ration

Using an efficient shower 8x5 mins
1 ration

Using an efficient toilet flush x 45
1 ration

Where to find more info:

Free water saving devices:

www.thameswater.co.uk/cps/rde/xchg/corp/hs.xml/3975.htm
www.shower-smart.co.uk/

Cheap water butts:

www.thames2u.com 0845 658 8866

Request a water meter:

www.waterplc.com/customer_information_water_meters.html

Plant a tree: www.treesforcities.org - 020 7587 1320

www.native-tree-shop.com - 01476 581111



Brushing teeth with tap off unlimited number of times
1 ration

Washing veg in a bowl once a day
1 ration

Using an efficient dishwasher 25 times
1 ration

Filling the bath 1/3 full twice a week
1 ration

Transport

Sutton's growth as a town was primarily due to its transport links, in particular the London to Brighton Turnpike Road (now the Brighton Road) and subsequently the railways²⁵. Before 1845 Sutton was a small village, smaller than Cheam, but the coming of the railway line and subsequent release of local land enabled an increase in the town's prosperity²⁶. In 1851 Sutton's population was only 1,387 but the arrival of the railways made the area desirable to commuters and by 1881 the population had increased to 10,334²⁷.

Sutton station was opened by the London, Brighton and South Coast Railway (LB&SCR) in 1847 as part of the new West Croydon to Epsom line. A branch to Epsom Downs was opened in 1865 followed by a line to Mitcham Junction in 1868. The final change to the station came when the branch to Wimbledon opened in 1930. What is now Wallington railway station was first opened as Carshalton station²⁸.

With the coming of the railway, Sutton went from an agricultural economy to an expanding dormitory town and a commercial economy²⁹. Trade increased within the area so accommodation in the station goods yards had to be increased by building two extra sidings in 1901³⁰. Much of the freight handled on the Epsom Downs line was coal for domestic use and residential institutions. As the demand for rail freight declined in the 1960s, local goods yards closed, with Sutton closing in 1968 and the yard at Belmont closing in 1969³¹.



Carshalton ponds around 1906

From 1861 there was an expansion of the road network. Building had started in the "New Town"³² in 1860, which was the first on a large scale and more than doubled the population of Sutton³³. Easy and rapid access to and from the City of London by railway made it a desirable residential area for city workers, leading to housing development and a need for retail and service industries³⁴.

Before 1906 the only public road transport in the area was a horse bus service to Croydon³⁵. The first tram lines were laid in Sutton in 1906, to a degree of local protest. The Croydon and District Electric Tramways Act of 1902 authorised the South Metropolitan Electric

Traction and Lighting Company to construct the line. Trams from Croydon to Sutton ran down Ruskin Road rather than Carshalton High Street. New roads were constructed and old ones widened.

The motion of the trams resembled a small boat in a choppy sea as they went from side-to-side, but they provided a more convenient and speedy form of local travel than the horse buses, and danger to passengers was minimal. Until petrol buses started after the 1st World War the tram company had a monopoly of short stage transport between Croydon and Sutton³⁶. Trams were last seen in Sutton in 1935³⁷, until the opening of Therapia Lane tram stop in the borough in 2000.

The function of trams in Sutton was different from other areas. Here they were used to get to nearby destinations or for enjoyment; passenger transport peaked on Sundays and holiday times³⁸. Routes to Tooting and Sutton both ran through a great deal of open country and "Fresh air rides" were advertised on the trams - although much of the open country was in fact freehold building sites which were soon built upon³⁹.

"We had about a two mile walk to school because we couldn't afford the penny bus fare. When I got a little bit older I had a bicycle to go to school."
Alma Edwards

"We all walked to school didn't we? Nearly all of us. There used to be horses on delivery vans and mother was always on the look out for any dung that was dropped on the road. She used to whip out with a bucket and a shovel that was kept near the door." Janet Ringrose

"I used to take my scooter and go round the corner and do the shopping for the housekeeper, she used to give me a sixpence." Mary Wake

Motor omnibuses started in 1913 connecting remote rural areas⁴⁰. Trams were gradually replaced with trolley buses, which used the same overhead installations but were not restricted in movement on the road surface. After World War II diesel buses replaced trolley buses along the old tram route⁴¹.

The most favoured form of transport in this period was cycling, the first individual form of transport for the not very wealthy. Most people could not afford to drive cars and car drivers were the rich elite. Cycles were manufactured in increasing numbers from 1870, and roads began to be kept in good order; after the railways were built, local roads began to fall into disrepair as they were not used by the travelling public⁴². Cycling was regarded as safe, slow, clean and practical - perfect for suburban life. Motor transport was generally despised, and preferential treatment was given to bicycles on the roads⁴³.



Locals standing on their bicycles to view the aftermath of the bombing of Croydon Airport in 1940.

The Future:

Transport is the fastest growing contributor to CO₂ emissions in the UK⁴⁴. In 2008, 53% of Sutton residents travelled to work by car, 38% of these journeys were less than 3¼ miles and 66% less than 6.5 miles - a half hour cycle⁴⁵. Nationally, total road traffic has grown by 82% since 1980⁴⁶.

As fossil fuel prices rise, we will need to find cleaner, cheaper, carbon-free renewable alternatives to petrol. For cars, this is likely to be battery electric vehicles. Electric motors are 4-5 times more efficient than internal combustion engines, giving an immediate energy saving. They also have lighter motors and other components, producing lighter vehicles and supporting a virtuous cycle of efficiency improvements. Apart from the energy savings themselves, it would be possible to develop a Vehicle to Grid system (V2G), which would allow people to sell the use of their onboard battery storage back to utility companies while they are not being used - helping to overcome some of the peak demand issues of renewable energy technologies. It is estimated that power generated by vehicles in this way could supply as much as ten times the average power requirement of the National Grid⁴⁷.

Cycling and walking will become increasingly popular again as the costs of driving rise, helping us to stay fit and using virtually no carbon.

"We visited my mother's family in Sevenoaks. There was a tremendous blizzard in Christmas 1927 and we couldn't get back. My father had a Morris Cowley at that time, and we had to be carried to the station to get a steam train up to London because the drifts were 15 feet deep. I had to be carried because I was too small to walk in the snow." John Priest

"My father took my sister and me for one weeks holiday a year. We went to Ramsgate and travelled by steam train. We always booked seats with our back to the engine so we didn't get troubled by smuts coming in the window. At the station there were always several young boys with hand-made carts willing to cart our suitcase to the boarding house for a few pennies." Mary Bates

"They sent me to my Aunt's in the holidays to keep me busy. My Dad would take me on the back of his bike, we were great cyclists. I would sit on the back, I was pillion."
Dorothy Terry

"In later years I would cycle 50 or 60 miles to see my grandparents."
John Gallon

Take the Carbon Challenge - Travel

6x2km return car journey

1 ration

2x5km return car journey

1 ration

10km return car journey

1 ration

50km return car journey

5 rations

2x10km return train journey

1 ration

50km return train journey

2 rations

8x2km return bus journey

1 ration

3x5km return bus journey

1 ration

10km return bus journey

1 ration

50km return bus journey

4 rations

200km by bicycle

1 ration

1 return train trip to Edinburgh (650km)

27 rations

1 return domestic flight (e.g. London to Edinburgh)

172 rations

1 return long haul flight (e.g. London to Sidney)

1096 rations

A new 'supermini' car

2945 rations

A new bicycle

44 rations

Do your bit:

Drive less: Leave the car at home for short journeys. Share car journeys and reduce single occupancy car travel as much as you can. Turn off your engine if your car is stationary for two minutes or more. Checking your tyres are inflated to the correct pressure can save as much as 5% on your fuel bill. Remove unnecessarily heavy loads from the boot or roof of your car.

Use Alternatives: Choose a dual fuel vehicle (eg petrol/gas or petrol/electricity) or choose the most fuel efficient vehicle you can.

Investigate local car club schemes - book any car in the fleet online or by phone, and then use your smartcard to pick up and return the car. It costs as little as £3.96 per hour or £39.60 per 24 hours.

Taking public transport instead of the car also saves money. It can also lower stress levels, be faster and save hassle finding somewhere to

park. Take the train or bus to replace as many car journeys as you can and arrange meetings around public transport timetables. Cycling is all those things plus it's fast, convenient, gives you freedom and takes you from door to door, allows you to double park, is reliable, and even allows you to make eye contact with fellow human beings! Walking can make a real difference to your health, the community's health and to the local environment.

Stay local: Holiday in the UK or visit Europe by train. Aeroplanes burn huge quantities of fossil fuel and are now the fastest-growing contributor to global warming. As well as emitting far more CO₂, they emit the CO₂ directly into the upper atmosphere, where it does twice (in fact, 2.7 times) the damage of CO₂ emitted at ground level⁴⁸. Apart from producing 10 times less CO₂ than an equivalent flight, Eurostar has now pledged to reduce its own emissions by 25% by 2012, and to offset every traveller's CO₂ free of charge.

Where to find more info:

Share your car journeys: 0871 8718 880

www.nationalcarshare.co.uk

Check your tyre pressures:

www.thetyrepressuremonitor.com (top right corner)

Car buyers guides:

www.eta.co.uk/car_buyers_guide

www.greencarsite.co.uk

Fuel Efficiency comparison:

www.vcacarfueldata.org.uk

Car clubs: www.streetcar.co.uk 0845 644 8476

www.citycarclub.co.uk - 0845 330 1234

National Rail Enquiries: www.nationalrail.co.uk/ 08457 484950

Online train booking: www.thetrainline.com

Journey planner: www.tfl.gov.uk

Free adult cycle training: 020 8770 5070

<http://dev.sts.netxtra.net/plan/cycling/training>

EcoLocal Cycling Services:

www.ecolocal.org.uk/bikes

Weekly guided leisure rides around Mitcham and the surrounding areas and beginners rides from Beddington Park: Mark@pollardshillcyclists.org.uk, www.pollardshillcyclists.org.uk

Sutton Healthy walks:

ashley.gordon@smpct.nhs.uk 020 8254 8202

Walking Works: www.walkingworks.org.uk

Holiday in the UK: www.visitbritain.com

Europe by train: www.seat61.com

EcoLocal Deliveries: 07948 316581



A return to local deliveries by cycle

Food

The Borough was once highly self-sufficient in food. In the 1830s, the five villages of the borough of Sutton were surrounded by fields, farming wheat, oats, barley and dairy cattle. The large area of downland to the south was used for grazing sheep. These drier chalk slopes were also suitable for growing herbs such as lavender and mint. Most people were involved in the local food economy either directly by working in the fields or through activities such as milling or selling the produce⁴⁹.

Sheep were kept on the downs, mainly around Cheam, Sutton and Wallington, although Little Woodcote Farm and Woodcote Grove Farm were rearing sheep according to the 1841 census. In 1831, Ewell Fair had 30,000 Downs sheep on sale, and large numbers would travel their way to London markets⁵⁰. In 1866 it is recorded that there were 885 sheep in Cheam, most of these were Marino or Southdown breeds. Being a shepherd or cowman was considered a skilled job and they were paid more than the ordinary farmworker⁵¹.



Barrow Hedges Farm

Much of what is now residential suburbia was at one time farmland, with large farms documented at Barrow Hedges and Westcroft. Pat Kerr, who introduced the potato 'Kerr's Pink', which is still grown today, farmed land from Cheam High Street to the Downs⁵². The largest farm in the district in 1861 was Great Woodcote Farm on the border with Croydon, where the farmer Hugh Raincock is shown as having 950 acres and employing 34 men and 3 boys. Another farm at Woodcote was run by James Arnott, who had 400 acres⁵³

Grain was a substantial local crop. Wrythe Green was often called Carshalton Rye, which may have referred to the local fields of Rye⁵⁴. In Stafford Road, Wallington there were large fields of wheat which at harvest time provided work for many local people. Children would often be kept from school in order to help with the harvest, this being an important part of the farming year.

Fruit was also plentiful locally. Orchards are documented, e.g at Little Woodcote, along with four pear crofts to the east of Clensham Lane⁵⁵. To the west of Nonsuch, the orchards of Martin's farm still flourished into the 1960s. Walnut trees grew in a meadow near Woodcote Hall⁵⁶. Carew Manor was also known for an orangery created in the 16th century.

Food in the home

Fresh vegetables and fruit could be bought regularly from nearby smallholdings along Woodmansterne Lane (Wallington) whose owners called in a van⁵⁷. Bananas and tomatoes began to appear in the shops about 1883. The schoolmaster at West Street (Mr. Cook) had a son at sea and returning from one voyage he brought a stem of bananas. Rumours spread that tomato pips caused cancer so their sale was restricted for a time⁵⁸.

Non-perishable food had to be bought in bulk at the appropriate season and then stored carefully. Fruit and vegetables could be bottled or preserved. People were more likely to scrape the mould off food rather than just throw it away. Well-peppered meat kept off flies (instead of refrigeration) or wrapping in cloth and burying in a hole dug from fresh earth.

Often when animals were killed to eat, nothing was wasted, for example the blood from pigs was used to make black puddings and sausages from the intestines. At the very bottom of the social scale wood sawdust was made into bread. It needed a lot of yeast and was 'improved' by the addition of cereal flour⁵⁹.

Bread bought in a shop was sold by weight and you invariably had an extra piece as makeweight. Potatoes were sold by the pottle (a pot that holds 2 quarts), as was bran. When meat was scarce or dear the housewife made more use of game, poultry and birds (this included skylarks and lapwings, hare, wild ducks and pigeons). Food was heavier and more lavish than that today. Chicken was a great luxury and very expensive. Hake and

cod were considered 'common'. Suet (raw beef or mutton fat) was an essential ingredient in steamed puddings, and in the pastry for steak and kidney pudding, in which a pudding bowl is lined with the suet crust pastry, the meat added and a lid of suet crust tightly seals the meat. The pudding is then steamed for approximately four hours before serving in the bowl on the table. Suet pastry is soft in contrast to the crispness of shortcrust pastry) and many others. Beef Dripping (the collected fat and juices from the roasting pan) spread on a piece of bread was also a staple in many homes. Mealtimes were formal family occasions. All meat courses were accompanied by some form of potatoes and

"When we had dripping it had jelly in the bottom. We never heard of cholesterol as kids. Monday we used to have the meat that was left over from Sunday cold with mashed potato and pickle. Or bubble and squeak."
Mary Wake

"You used to put the joint in and the potatoes around it so that you got the flavour of the meat as well."
Lillian Newble

"If we had bacon my Mother used to cook the cabbage in with the bacon. She used to cook puddings in the copper and it used to come out the colour of the wash, blue, green, whatever." Gladys Lewington

"My mum used to buy the rabbit from the butcher already skinned and gutted. He would cut it into sections for her and she'd put that in a pot with vegetables, carrots, onions, turnips, swede, all the vegetables you can imagine and boil that for ages and ages with the little oxo cubes and she used to make the dumplings and put them in and that was a meal for a couple of days and it filled you up. It was so tender, it was better than chicken, though in those days we never had chicken"
Hattie Bellinger



"Stuffed sheep's hearts were very nice, stuffed with sage and onion stuffing, breadcrumbs and onion. You could slice it like a joint." Bill Rickman

"The first meal, my poor husband couldn't eat it, it was dreadful. So he went out and bought me a set of kitchen scales and a cookery book." Dolly Beard

"You could boil a pig's head till the meat comes off the bone and then it sets into pieces of meat and pieces of jelly called brawn." Joanna Shrimpton

"You'd buy your meat and then immediately cook it because you hadn't got a fridge" Eveline Sutherland
"When milk had left its "drink by day" mum would put the residue in a muslin sheet of cloth and hang it in the larder for the whey to drip out and then there was cottage cheese with chives chopped in it from our back garden." Jennie Rookledge

"My mother was the daughter of a butcher so we had an awful lot of real meat and I used to help them make the sausages and it was made out of pure pork, no scraps at all, and they made it in 14lb quantities and I always remember putting the skewer on the scales because that was the weight of the pepper that you put in. They used sheep's intestines for binding, long things in a dried state and they soaked them before putting them onto a machine." John Priest.

"On Sunday afternoons you put sweet chestnuts on a shovel in front of the fire and watch them to make sure it was only the outer shell that got burnt."
Janet Ringrose

"You can make a casserole go a long way by adding little bits and pieces that are lying around, but casserole was favourite of the day." John Gallon

"Some of the Sunday roast would be saved so we could have cold meat and bubble and squeak on the Monday. Nothing had a use by date on, mum used her eyes and nose - if it smelt and looked ok we had to eat it." Trudy Simpson

My daughter and I used to make pies and cakes, and fruit pies and every weekend I used to make two dishes of bread pudding. We would soak the bread, squeeze the water in it, put sultanas in and nuts or cherries and it was gone like that. Ena Kemble

Children loved bread pudding, it filled them up, especially when they came home from school and they were hungry. Dorothy Terry

fresh vegetables, generally two kinds, according to season. A hot pudding would follow, such as steamed sultana pudding or syrup sponge, fruit tart or rice pudding. The Sunday pudding course was always rather special and might consist of a trifle or fruit jelly, or stewed prunes with blanc-mange. Afternoon tea would consist of white and brown bread and butter, and jam or paste, and a variety of cakes. The children were also given a light bedtime snack or biscuits and milk or lemonade or cocoa in winter. Shopping day trips to Sutton or Croydon would include having 'tea' out in a large store e.g. Kennards (now Debenhams) in Croydon. Toasted tea-cake, hot-buttered toast, or crumpets would be eaten, following by 'fancy cakes'. Christmas 'supper' included cold turkey with York ham and salad, trifles, jellies, hot mince pies with whipped cream, followed by fresh tangerines, grapes and crystalised fruits and sweet port wine with walnuts and brazil nuts to finish off⁶⁰.

Sweets and snack foods were as popular then as today. Hot savouries sold by a butcher near the gasworks were very popular - faggots composed of chopped liver and breadcrumbs, blood puddings consisting of congealed blood and suet were good for supper. Mrs. Badcock (greengrocer) sold a Scotch Bun which was a slab of brown fruit cake between pastry crusts, kept in a wicker basket beneath the counter and it needed several taps to dislodge the ants.

People also made more use of "food for free". In season, beech nuts were found in Cheam Road and berries (minus their stones) from St. Nicholas churchyard were popular. Often on Sundays people would walk along Banstead Road, past Short's Farm on the left and farm fields on the right. Here there were hedges of blackberries (ripe in August and September), and there always seemed to be enough for all⁶¹.

Food was also of great social significance. An annual event, now forgotten, was the butchers' Christmas display. Tradesmen attending the Smithfield Cattle Show bought the prize animals and housed them in a shop or yard for a few days before the Christmas week. Mr Goslin usually had a pen of pigs in his shop. Add's, opposite, went in for prize pigs; Brown's yard sported fat bullocks, as did Stevens in Benhill Street. The Jubilee bullock of 1887, presented by Butcher Brown, was an old Sutton curiosity. Tradition has it that it was roasted whole during the festivities but in fact two choice sirloins went to important officials, then every scrap was used to provide a grand feed for "whosoever will" in large tents at Rose Hill field. The bullock paraded the High Street during the Mafficking of 1900.

Food in the War

The World War II diet may sound alien to twenty-first century ears, but it has been shown to be an extremely healthy way to live. Householders were told they were on the "Kitchen Front" and that they had a duty to use foods to their greatest advantage. The Ministry devised characters such as Potato Pete and Dr Carrot to put their message across. Rationing was introduced in January 1940, and was not completely phased out until 1954. Marguerite Patten was a home economist during WWII with the Ministry of Food. Ms Patten, who also appeared on the BBC radio programme 'Kitchen Front' has since compiled recipe books based on the wartime diet. Housewives were told to use up every scrap of food they had. Marguerite Patten said: "People were hungry, and they turned to cake. So I devised the eggless fruit cake. That's survived over the years. People still make it if they are cooking for someone who's allergic to dairy products."⁶².

Cakes and bread were unrationed, as was fish when obtainable; also sausages and offal if one was lucky! Vegetables were often fairly plentiful, but such things as bananas and oranges became like gold dust and only available for young children. All forms of sweets and chocolate were also rationed. Jams, marmalades and syrup

"We had to wash our hands before we sat down for a meal and then all sit quietly until everyone was ready to eat and we had to eat every crumb. And everyone had to sit there until everyone had finished and then you had to ask for permission to leave the table. We had to wash the dishes and dry them and peel the potatoes." Cecilia Perren

"Fridays were fish and chips but we couldn't eat them out of the paper we had to sit up at the table." Hattie Bellinger

"We never ate between meals. You ate three meals a day and that was the only time you ate." Janet Ringrose

"We all had our place at the dinner table. I was near enough to Dad to get whacked if I did something wrong. The bread was at one end and we always used to bag the crust - we always seemed to be keen to have the crust." Ann Murrells

were limited to only a few ounces per person per month; but dried eggs were quite a help for making puddings or cakes, though milk was very scarce and fresh eggs were limited to about one per person per month. Nearly every single item was so reduced in quantity as to be useless. People who worked in factories or offices could have the benefit of unrationed meals in canteens, or if one could afford to eat in a restaurant, this was a great help. Schools also began to provide unrationed meals for the children. There was undoubtedly a widespread black market for unrationed goods⁶³.

Growing food at home

"You only had a little bit of cheese to last you a week. Sugar was very hard to get. You had a ration book with coupons in and when you wanted something you'd take it to the shop and get what you wanted and they'd take the coupons out. People were more healthy during the war through the ration - they had a more balanced diet." Hattie Bellinger

"My mother had a good wheeze because she had my youngest brother registered as a vegetarian because the amount of meat you got for a five year old was nothing, but as a vegetarian he got extra cheese and eggs, if there were any eggs." Pauline Livings

"When I started teaching in 1949, things were still rationed and I was teaching cooking and we got so much ration for each class in the week and you know I had to eek it out. But I was down in Kent and it was a coalmining area and a farming area and farm workers and coalminers got extra cheese rations so several of the children said to me: 'mother said could you please teach us some cheese dishes because we are bored with the ones that we know. We concentrated on cheese dishes because it was 12oz a week for a miner which is quite a lot of cheese.'" Patricia James

"When they took sweet rationing off, it was only off about a fortnight and they had to put it back on again because the shops sold out." Les Murrells

"During the war there were no bananas or oranges so when the fruit used to run out in the autumn we used to wrap it and store it or preserve it so that it would last almost until the strawberries in the summer." Doreen Eleftheriadis

"If you had fruit trees you had extra sugar coupons to make jam. The garden next to ours had a walnut tree and we used to collect the walnuts and eat them. We had a tennis lawn which my father dug up to grow potatoes. We kept chickens and I can always remember the terrible smell of the potato peelings being boiled up in the kitchen for the chickens." Janet Ringrose

"They introduced National Flour because the bakers were diluting their flour with chalk and people were wondering why their baking didn't rise." Janet Ringrose

"With the food rationing I remember one person would put in sugar, another flour, another bread, then make a bread pudding which all the neighbours shared." J Cole

Growing your own has long been important in the local food economy, particularly in times of recession or war. The Smallholding and Allotment Act 1907 imposed responsibilities on parish, urban district and borough councils to provide allotments. To the Victorians, allotments were a productive use of time, keeping the poor away from the evils of drink and providing wholesome food for a workforce housed in tenements and high density terraced housing without gardens to speak of. During the First World War, Germany's blockade caused food shortages which increased the demand for allotments, as did the financial collapse in The Great Depression. During the Second World War the pressure was greater and even public parks were used for food production. The 'Dig for Victory' campaign educated the public to produce their own food. Allotment and home food production is highly productive in terms of land use and during the war, allotments were estimated to contribute some 1.3 million tonnes from 1.4 million plots. Agricultural production generally is more efficient in terms of labour but not in terms of land usage. Following the peak of 1943 there was a sharp decline in allotment provision, and many allotment sites fell into disuse or were built on. Concerns about genetic modification, over use of pesticides and the desire for ultimate in freshness, along with the recent recession has seen a recent surge in interest in allotments⁶⁴. Sutton now has a waiting list for all of its allotment sites.

"The horse and cart used to come round and my dad was a keen gardener and the man opposite was a keen gardener and they used to rush out with a bucket and shovel." Francis Tingey-Smith

"We never bought a vegetable for 23 years because I had an allotment. Part of Streatham Common was turned into allotments in the war. I enjoyed it. It was hard work but it was good." Jack Elfred

"My father had a market garden. He and my mother ran a fruit and vegetable shop and they also sold flowers. He had a plot of land where he grew some of the things that he sold. We had a big glasshouse at the back of the shop for flowers. My grandmother kept bees and they sold the honey in my father's shop." Frank Gunton



1942 Flower and Produce Show at Bute Road School

"I grew tomatoes in the greenhouse, or my husband did, and we had friends and the competition was who was going to grow the biggest tomato and we woke up one morning and someone had tied a big tomato to the plant." Ruby Tilston

"My grandfather had a market garden and sold the vegetables in his shop locally in Wallington. He had an orchard so in the summer holidays we'd pick plums. There was always a wide variety." Shirley Tennant

"My father came home with 13 small chicks, the thirteenth had a funny shaped leg and we called him Long John Silver. Come Christmas every one of them went out to neighbours and people like that and we had Long John Silver." Les Murrells

"We kept pigs and one pig used to always have babies and she always had too many to keep warm so they used to come in the kitchen in a box that we'd put under the Rayburn." Mandi Suheimat

"We used to collect dandelion heads and my father used to make wine." Ann Murrells

"You were lucky if you had a fruit tree in your garden, then you got dessert. Mother made jam from the fruit in the garden, and chutney, in preserving jars. We then stuck them in the oven to boil. They had a lid with an elastic band around it to seal it off. Cook the fruit, seal it off and then it was ready for the cupboard." Violet

"We rented an allotment which was very productive for us. Mum used to use Kilner jars and pickle onions and in the bottom of the larder (pantry) there were large stone jars containing pickled eggs and green beans." Jennie Rookledge

"We had vegetables down one side, and on the other side of the path we'd have a few flowers, but we always grew all our own vegetables". Amy Willmot

The Future:

Much of the energy we consume, and therefore the carbon we emit, comes from the production and distribution of the food we eat. 10 calories of oil are typically consumed to produce one calorie of food including chemical fertilizers, pesticides, transport and packaging⁶⁵. Many of the products we buy in supermarkets have travelled thousands of miles to reach the shelves. 6.9million tonnes of food were consumed in London in 2000, 81% was imported from outside the UK⁶⁶.

In the future, the lack of oil based pesticides and fertilisers will make a return to organic farming the norm. Inevitably high transportation costs will mean that much of our food will be grown closer to home with many choosing to grow their own. This is good from the point of view of climate change, but those who choose not to, or cannot, grow their own, may find their weekly shopping bills a lot bigger than they are now.

Take the Carbon Challenge - Food

15 eggs

1 ration

2 litres milk

1 ration

300g pig meat

1 ration

300g poultry

1 ration

150g cheese and 150g butter

1 ration

150g beef

1 ration

150g sheep or goat

1 ration

8kg potatoes

1 ration

500g out of season fruit or veg

1 ration

1.5 loaves of wholemeal bread

1 ration

Grow your own veg
FREE

Compost
FREE

Keep bees
FREE

Do your bit:

Buy organic: A recent UK study found organic farms use 26% less energy than non-organic farms to produce the same amount of food ⁶⁷. It is also more climate friendly than conventional farming. Just adding fertiliser to the land releases nitrous oxide (a climate change gas). Fertilisers also make the soil more acidic, so farmers add lime to counter-balance this. This produces carbon dioxide. Organic farming actively encourages soil micro-organisms, which reduces emissions and by applying organic matter to the soil, it increases the carbon in the soil so reducing carbon dioxide emissions. Subscribe to an organic veg box scheme for boxes full of seasonal, freshly picked produce delivered straight to your door.

Buy locally: Food is travelling further than ever before, often hundreds of miles from where it was produced. Family farms, local abattoirs, processing plants, local food distribution systems and small shops are all disappearing, unable to compete in today's global market. Cut the distance your food has travelled, buy local if you can. Ask about local sourcing of produce in your supermarket. Support your local farmers' markets and farm shops.

Buy Seasonally: buying what is in season is cheaper and uses less food miles. Buy extra to freeze or bottle.

Buy less: About 8.3 million tonnes of food is thrown away by households in the UK each year, which costs the average family with children £680 a year. A large part of this food is edible and is merely perceived to have exceeded its useable life. If we all stopped wasting food, the CO₂ impact would be the equivalent of taking 1 in 4 cars off the road ⁶⁸.

Plan your weeks meals, make a shopping list and buy only what you need - keep a careful eye on 'use by' dates. Use your leftovers - freeze leftover portions, make soups, stews, and bubble and squeak.

Grow your own: Get an allotment, dig a veg patch in your garden or grow food in containers for a personal supply of locally grown food - it's good exercise too! Help out on the Community Allotment or Community Farm and share in the produce. Food growing courses are run locally by EcoLocal and SCOLA. You could even keep your own chickens.

Eat less meat: A plant-based diet uses substantially less energy than a diet based on animal products. This energy is virtually all derived from fossil fuels, making meat and dairy consumption a contributing factor in climate change. Meat eating is responsible for at least a third of all biological methane emissions ⁶⁹. A vegetable rich diet is also a healthy diet, so why not try and eat one or more vegetarian meals each week?

Where to find more info:

Organic Box schemes:

www.soilassociation.org/Takeaction/Buyorganic/Organicbudget/tabid/336/Default.aspx

Farmers' Markets: **Wallington** - 2nd Saturday of every month, 9am - 1pm Town Hall and Library Gardens. **Sutton** - 4th Saturday of every month, 9.30am - 1.30pm Town Square, Sutton High Street. www.ecolocal.org.uk/markets

Allotments: Sutton Council 020 8770 5070

Share some land for food growing: landshare.channel4.com/how-it-works

Food growing for families: the Beanstalk project www.ecolocal.org.uk/project-detail.php?id=32

Food growing for adults: (EcoLocal) 0208 770 6611 food@ecolocal.org.uk

SCOLA food growing courses: 020 8770 6945

www.scola.ac.uk/courses/Flowers/Gardening.htm

Help out on EcoLocal's Community Allotment: 020 8770 6611 food@ecolocal.org.uk

Help out at Sutton Community Farm:

020 8404 7085 www.suttoncommunityfarm.org.uk

Keeping chickens: www.poultry.allotment.org.uk

Organic gardening tips: www.gardenorganic.org.uk

Organic gardening supplies:

www.organiccatalog.com/catalog

Meat free recipes: www.ivu.org/recipes

www.vegoc.org/cordonvert/recipes

www.vegansociety.com/food/recipes

Free booklet: 'Food for Thought': 0161 925 2000

Shopping

As the coming of the railways improved transport links, Sutton and its surrounding villages began to change from agricultural villages to dormitory towns. Over time this transformation was reflected in the number and type of local shops.

Between 1869 and 1938^{70,71,72} the town of Sutton expanded and new businesses began to flourish. Prior to this, Sutton was small with local shops centred around the essentials. Tailors, milliners, outfitters and drapers made up a substantial proportion of trade on the High Street along with grocers, bakers and provision merchants. Ironmongers, smiths, wheelwrights, carriage makers and saddlers were also plentiful, providing for the needs of the local farms and farm workers.

As the town became more wealthy and less agricultural, there was an increase in businesses providing services and luxuries, including fancy draper's shops, launderers and confectioners. Most notable among the drapers were Wooton Brothers on Grove Road and Shiners. Ernest George Shinner opened a drapers and milliners shop in 1899 and owned nearly the whole terrace within 9 years. At its golden jubilee in 1949, Shiners had become a large department store on what is now the Town Square, complete with restaurant and another premises on Grove road selling carpets and upholstery⁷³. In 1939 Shiners joined forces with United Drapers and in 1979 it changed its name to Allders⁷⁴.

In addition, there was a steady increase in the number of financial and legal institutions. By 1938 there were around 30 estate agents, auctioneers, banks and solicitors in Sutton, concentrated around the top of the High Street near the station, where previously there were none, reflecting the development of the financial economy locally.

Chain stores arrived in the high street in the 1890s. Sainsbury's first appears sometime between 1893 and 1897. There was also a branch of the Home and Colonial stores, which had 100 stores nationwide at the turn of the century⁷⁵, along with British Home Stores (BHS) and Holland & Barrett. Dorothy Perkins, Clara Reid, Woolworths and Boots appeared in the 1920s.

After the turn of the century however, many of the traditional businesses declined. By the 1930s just one ironmonger (J Holmes and Sons), one saddler, P.J. Gardner, and one farrier, Hay's and Sons, remained. In their place were motor mechanics and cycle shops. One such shop was owned by Thomas Pearson who appears in the directories as early as 1864 as a blacksmith, becomes a cycle maker and motor repairer in 1904 when taken over by Harry Pearson, with another branch opening up on Collingwood Road in 1905.

In an article about the Pearsons in the Herald (1960), there is a description of how Sutton was when Thomas Pearson first opened his shop: "Sutton was a place where the children bowled iron hoops down the High-Street and brought them to Tom Pearson to mend at a penny a time: where travelling theatricals playing "Maria Martin in the Red Barn" were a grand event; where the milk was delivered by the dairyman's daughter who carried two big cans suspended from a yoke over her shoulders; where the Brighton Road tollgate held up a line of traffic on race days and the postman, who earned 15s a week, augmented his income by pulling teeth at a shilling each, always having forceps with him on his delivery rounds."⁷⁶

"We didn't have supermarkets in those days, just individual shops. We had to go shopping every day."
Hattie Bellinger

"We just had a parade of shops and each shop was separate. The grocer's and the baker's and the butcher's. We had a couple of what were called pay and take shops which were self-service and we understood they were some of the first in the country. When we had a Sainsbury's, the counter had cheese in one place, butter and margarine and you used to have to queue up at each separate bit of the counter for what you wanted, so that took quite a long time." Patricia James

"In Woodside, near Croydon, the butcher had a horse and carriage out the back which he hired out for all kinds of things. The village was pretty self sustaining because we'd got a sweep and a smithy, and a variety of shops."
Eveline Sutherland

"We had local shops, but they were only for posh people. We would walk to Maple Road - they weren't shops, they were stalls. My father used to go to work and my Mum couldn't do her shopping until he got paid Saturday dinner time and came home for his tea, and she would rush down then to get the shopping." Nelly Arnold

Upon the opening of the extension to the Shinners store in 1935, the Mayor reflected on just how much Sutton had changed; "To many,... there will be a feeling of regret that old landmarks should disappear. We think of the Sutton of 50 years ago, a charming village surrounded by old-world farms and houses; its quaintly rural shops which lingered on until a few years ago. It seems but yesterday that we saw the old butcher's shop and the moss covered tiled roof shoe shop jutting out, almost into the street. But such a charming spot could not for ever resist the encroachment of the extending Metropolis. The railway, tram and bus opened up the district, and the needs of the community must be met." ⁷⁷

Unlike Sutton High Street, trades in the surrounding villages such as Carshalton remained fairly constant up until the 1930s. The sorts of trade that existed included more practical shops, such as butchers, bakers, ironmongers, saddlers, grocers etc. It is quite likely that for more extravagant shopping, Sutton High Street was the place to go. However for everyday, practical shopping it was more convenient to have these shops locally.

In an occupation survey of Cashalton taken during the turn of the century, the majority of traders dealt with food; 18 bakers, 10 butchers and 24 grocers and greengrocers. Residential streets had shops in between houses, as well as a pub on the corner. People used to shop every day, and many tradesmen visited the house. Twice a week one of the grocer's assistants from Millest's in Railway Approach, Carshalton would call at the houses in the morning and be admitted to the kitchen, where he would sit down and write in his order book a list of grocery requirements which would be delivered later that day. Green grocers called several times a week with a horse-drawn cart loaded with cabbages and potatoes and fruit. There were errand boys on bicycles who delivered orders from grocers or butchers. The fishmonger and baker also sent daily orders. Sometimes a muffin man called, with a green baize (a coarse woollen, or sometimes cotton cloth) tray slung round his neck, full of muffins^{78, 79}. Every pussycat in the town knew the cry of the catsmeat man with his basket of skewered horseflesh, price one halfpenny. In later times an Italian ice-cream vendor came from Croydon daily. His barrow was drawn by a donkey and stood at Cheam Road corner. Jack and his donkey were extremely

"The milkman used to come round in the morning and you used to go out with a jug and ask for a pint or a half pint and the milkman would ladle it out of his churn." Hattie Bellinger

"We had a man used to come round sharpening knives, so everyone would rush out with their knives and scissors" Joy Juster

"The milkman came twice a day - around 7.30 in the morning and again at lunch time. He was always grumpy in the early morning! He had a push cart filled with glass bottles and handles at the back for him to push by. Later a young milkman had a larger cart with an electric motor attached - but he still had to walk beside it." Mary Bates

unhygienic and would not be tolerated today. Ices were a halfpenny and a "topper up" could be had in addition. Sugar sticks for tiny tots cost a farthing, tiger nuts, a small hard kernel - locusts, a sweet dried bean costing a whole penny.



Riddington's bread delivery van in the 1950's

who left the premises in the 1970s. Haydon's was another long lived butcher on the High Street, who also had another branch in Wallington. They were, according to one advert, the oldest butcher's on record in the whole of England. This long-lived business came to an end after the building was bombed in 1940⁸¹, and this, along with the financial pressure resulting from meat rationing, made the business too expensive to run⁸².

Rural life remained very close to those living in the villages around Sutton, and local produce was easily available. Many local people were agricultural workers and every village had at least one dairy. Selby's dairy was on the corner of Carshalton High Street from 1921 to 1931, and had

The slower pace of change in the local villages such as Carshalton is illustrated by businesses such as the Woodman Pub, which was a butchers for nearly 300 years, and owned in that time by just three families; the Harwoods, the Woodmans by 1905 and the Kingstons⁸⁰,



The Woodman, Carshalton as butchers' shop

"My mother would have a basin from the dresser and tuppence and say "go down and get twopenneth of cracked eggs"
Nelly Arnold

"They used to take an oblong piece of paper and make it into a cone, twist the bottom to close it and then the top bit flapped over for things like sugar and that. Well, the butter in Sainsbury's was a great big slab and they used wooden patters to chop bits off." Patricia James

"You used to be able to take a basin to the shop and get it filled up with pickles and they used to charge you three pence or six-pence at a time."
Nell Kirby

"In my grandfather's shop people would come in with a string bag and we used to weigh out potatoes and then they would go into a bag and we'd put a piece of newspaper over the top, then the carrots would go in and another piece of paper would go over and there would be hardly any bags used at all."
Shirley Tennant

their milk supplied by Cheam Court Farm, whose milking sheds were at the crossroads in Cheam. J. Sopp owned the Nightingale Road Farm Dairy supplying milk from his own cows, from 1914 to 1927. One of the oldest dairies was the Short's dairy on the corner of Shorts Road, with another branch in Wallington. Their milk supply came from their cows on Westmead Farm, within 1 hour of milking. There is an article in the Sutton Borough Post⁸³ of a Mrs Curtis remembering the days when her father, Mr Richmonds, worked for Short's dairy. "A milkan's life was very different... Her father would leave the house at 4 am every day, and it was usually 6 pm when he returned. During the day he made three rounds - in the morning, at lunchtime, and in the afternoon - all by foot. Customers bought milk by the can which they returned when empty, and they would buy anything from half a pint upwards. When the cans were returned, the milkmen had to wash them all by hand ready to use again."

The smallholdings at Little Woodcote were set up after the First World War, specifically for returning soldiers. Produce from these was sold locally, as well as further afield. John Chappel ran a grocers on Manor Road, Wallington from 1936/7 which, according to his granddaughter, was supplied with vegetables by the smallholdings. An article from 1994⁸⁴ described how Lloyd George, who had died aged 92, took on a smallholding after the First

World War. "George worked very hard selling his produce to wholesalers. He would get up at 4am, drive down the fields during harvest and... would pick lettuces". His wife, Gertie, would help packing and provide the jug of tea. They grew rows of lettuces, cabbages, peas and beans. The article describes the spirit of community amongst the farmers, stating that "George was the centre of the still close-knit farming community where lending machinery and a hand when someone is sick are commonplace." The article also talks about its recent situation saying that "Six huge supermarkets have sprung up in the area, but there are still queues of customers collecting the punnets during the self-pick season." It is thought that only four of the original smallholdings now remain productive⁸⁵.

Although retaining some of their rural charm, the local villages too were embracing change. Wallington was more affluent than Carshalton⁸⁶ and "in the early nineteen hundreds, transformed from a village into a suburb by the railway, bristled with bank clerks... they and their wives were the sort of people who were fascinated by all the gadgetry which followed the introduction of electricity." Electrical shops such as the Electrical Maintenance Company, owned by W.E. McClellan and established in 1919 begin to appear, along with photographic studios and motor trades.



"We used to have an accumulator in our radio and we used to take it to the ironmonger's to get it charged up. They were in Webb Street and York Street and we used to have to take them round there and charge them up. They only used to last about a week."
Vera Butlin

"The accumulator was a glass jar of liquid acid with 2 metal plates that was charged, and then you could use it as a source of electricity. It would sit in the wireless set because the set was big. We had a portable wireless set and in that the accumulator, instead of being liquid acid, used jelly so it wouldn't spill."
Frank Gunton



French and Co, photographers in Wallington, decked out for the coronation of Edward VII in 1902

Wallington also boasted the Lavender distiller, Miss S. Sprules, who has advertised herself in the 1896 Piles directory as providing "A delightful perfume, as used by Her Majesty and other Members of the Royal Family."

According to the historians at Whitehall, Cheam Village also became a more upmarket shopping area for the local, more affluent population, after the roads were widened in 1923. Prior to this, photographs show it to be a small place with a few shops, a dairy and two breweries, one of which claimed to be over 200 years old^{87, 88}.

As well as butchers, grocers (including Sainsbury's) and bakers for local food shopping, there was an influx of more luxurious shops such as the drapers, opened by Percy Harris in 1927 on Cheam High Street⁸⁹. Diagonally opposite across the crossroads on The Broadway was Sergeant's, a family run business selling



W Sergeant's cycle repair shop in The Broadway, Cheam

lawnmowers, gramophones and bikes. In 1928 the business added motor repairs to its repertoire. Much later, the store became known for selling and repairing lawnmowers⁹⁰, and in 2002 the store finally closed its doors after 80 years, unable to compete with the big DIY chains⁹¹.

“Make Do and Mend”

Despite increasing wealth locally and a greater range of local shops, there is no doubt that for many people life was hard and most people had to keep to a strict budget and “make do” to live within their means in a time without credit cards. Repairing and recycling were a feature of everyday life; bicycles, pots, pans and shoes were all mended. Fred Ellis had a forge on St. Andrew's Road in Carshalton which, when he retired in 1975⁹², was the only forge in the borough, although when he started there were three blacksmiths in Carshalton alone. He felt at that time that, due to the oil crisis, trade was picking up again; "Nowadays, people are starting to want things mended again, instead of having to buy, because money is tight. You find, though, that it's mostly the older people who say: 'we can't get it mended so we'll try the blacksmith.'"⁹³ Mr Blake, who retired from Hampton's leather shop and shoe repairer North Cheam in 1994, commented "It's such a shame that so many items are thrown away when they can be repaired. But there are so few of us left who have the skill and knowledge to repair them."⁹⁴

Long before the shortages of WWII, clothes, toys, food and other items would generally be made or grown yourself. Raw materials were precious and there simply was not the range of goods on offer in the shops today, even if you could afford them. If money got short you might have to resort to the pawn shop, to borrow against what you owned until payday.

"We used to rip things apart and cut them down to make smaller things. We used to rip up a sheet and make underwear. We got by. We screamed and shouted about having to make do all the time. We always wanted something new. It was all ingenuity. In those days if you didn't have something you had to think of a way round to doing it. We were only too pleased when rations came off and you could go out and buy what you wanted. All you could hear down the air raid shelter was clicking because the knitting needles were metal. If you wanted something you made it because you couldn't afford it. There were no fashion parades going on so it didn't matter. You couldn't do anything unless you had the money to do it. As children you got stuff that was passed down. You made things before you bought them." Sheila Winnan

"If we had a sheet that had gone a bit thin my mother used to cut them up and make pillow cases out of them. My Mum used to buy remnants from Kennards and see if there was enough to make a proper frock. We'd have boxes full of cotton in different colours. You could do a lot with four yards." Edna Brewster

"If you had a hole in your socks you had to darn them. With clothing you got a piece of material to match and you put it inside so it made it look all neat and tidy. You couldn't get the things, the Germans were stopping the ships from coming in. We used to make dresses and things like that. You had to queue up for materials at the drapers. If you had a hole in anything you had to mend it and you could usually find a spare bit of material off whatever it was needed mending. Antimaccasers were used to stop the grease getting onto the back of the chair. The forces used to have blankets and you could make coats out of them. Lovely and warm they were. My mum made one, she unpicked an old coat and used that as her pattern. My dad used to mend the shoes. Once you bought a pair of shoes they'd last for years. My father would buy a sheet of leather and cut round the shape of the shoe to make a new sole." Hattie Bellinger

"You couldn't afford to buy things, so you had to repair. You could get screw and washers for pots pans which were readily available and cheap to buy - 2 metal discs and a cork type of washer and a nut and

bolt. You would put it over the hole, screw it down tightly and hey presto, you could carry on using your pots and pans." John Gallon

"The rag and bone man used to come round and you used to get halfpenny for a jam jar." Nell Kirby

"There were always rag and bone men, always, just either with a cart or horse - that was the recycling in those days." Peter Curtis

"Christmas you never knew what you were going to get. You would get little things in a pillowcase. Now kids know what they are going to get or they ask for what they want, which is different." Joyce Keenan

"I can remember going to the Pawn Shop with my mum, with an old pram that she'd got. In those days you could pawn anything. The bedclothes off your bed, the curtains, the lot." Doreen Cook

"In the early days we used to use newspaper as toilet paper. We used to have to cut it into little squares and put a hole in it and put a string through it. At Christmas time you used to get tangerines and oranges wrapped up in paper and you used to flatten them out and put the hole in and that was a treat for Christmas - you had an orangey smell instead of newspaper." Hattie Bellinger

"We went to jumble sales to get little things and we knitted the clothes up again for the little children. We would not throw any clothes away." Else Collins

"I was one of ten children and my father used to mend all our shoes." Nelly Arnold

"I knitted socks, sea boot stockings for the Royal Navy, hundreds of pairs." Ethel Todd

"We used to keep chickens and Dad used to kill one for our supper, pluck the feathers and a few weeks after Mum had sterilized the feathers in the oven, they would go into a pillow!" Mandy Suheimat

"When we were low on soap mum would melt all the slivers together to make a bigger bar." Trudy Simpson



Take the Carbon Challenge - Clothes

One T shirt
3 rations

One sweatshirt
6 rations

One pair of underwear
1 ration

One pair of socks
1 ration

One vest
1 ration

One bra
1 ration

One pair of light cotton trousers
4 rations

One pair of shoes per year
1 ration per month

One pair of jeans
100 rations

One winter coat
60 rations

Swap some clothes
FREE

Knit a scarf
FREE

Darn socks
FREE

The Future:

Products and packaging require energy and raw materials (often oil) to be made and therefore add to our carbon footprint. In Sutton 38% of the waste we throw away is recycled leaving a lot which is buried in the ground at a landfill site. Here, the rubbish rots and makes methane (a green house gas which traps 21 times as much heat as CO₂⁹⁵) and leachate, which can pollute our water courses⁹⁶. In the future, as well as recycling, we need to reduce the amount we consume. Breaking the cycle and simply buying less has the added bonus of helping us to get out of debt which means we can work less and enjoy life more.

Local producers will become increasingly important as transport costs rise, and we will see the return of local family firms and repair shops and more regional producers. People may have to increasingly embrace traditional skills such as food growing, sewing and knitting, woodwork and even shoemaking, as resources become too precious to just throw away.

Do your bit:

Reduce: We can reduce the amount of waste we produce by only buying the things we really need. Make a shopping list and stick to it. Never binge shop or purchase idly. Buy goods that will last and that have been produced with the minimum environmental impact. Buy with energy efficiency, low waste and reparability in mind.

Buy products with less or recyclable packaging, and always take reusable bags with you. Buying products in bulk reduces packaging waste, especially if you bring your own reusable containers⁹⁷.

Take good care of your clothes and belongings to make them last longer. Carefully clean, repair and refashion clothes so they can serve for years.

Unwanted, unread Direct Mail is a waste of resources and if you don't want it, you can cancel it. Put a note on your door to stop unwanted pizza leaflets.

Avoid disposables: Use washable handkerchiefs rather than paper tissues, buy razors with replaceable heads. If you have small children, try using real nappies which can be re-used.

Re-use: Buy second-hand from a charity shop or eBay, rather than buying new. Advertise unwanted possessions online at sites such as freecycle. When you do buy new, buy Fairtrade or ethical products where possible. Clothes which are worn out can be cut up and used for cleaning cloths, or to stuff draught excluders. Use paper on both sides, re-use envelopes, wrapping paper, even greetings cards. Composting your food waste can reduce your household waste by up to a third.

Repair things: from bikes and electrical items to clothes and furniture. Learn skills such as sewing, knitting, darning or upholstery for fun and so you can repair and make things for yourself

Recycle: All paper, cardboard, cans, plastic bottles, drinks cartons, glass bottles and jars should go in your green wheeled bin. Textiles can be collected too, if you have a label from the council. Many other items can be recycled at the Reuse and Recycling Centre in Kimpton Road. Buy recycled products such as paper, newspaper insulation, refuse sacks, watering cans and garden tools, to increase the market for recycled materials.

Where to find more info:

The complete list of what you can and can't recycle in Sutton:

www.sutton.gov.uk/index.aspx?articleid=3118

Composting tips:

www.recyclenow.com/compost

Join Sutton Freecycle:

www.groups.freecycle.org/freecyclesutton/description

Search for charity shops in Sutton:

www.yell.com

Get your old fridge, cooker or washing machine collected:

020 8681 6721 www.arc-croydon.org.uk

Have Unwanted Furniture collected:

020 8685 6640 www.thevineproject.org

0844 499 4174 British Heart Foundation
Wallington

Get fresh milk delivered: 01622 727940

www.delivermilk.co.uk

Use real nappies: 07949 628148

kingstonmertonrnn@yahoo.co.uk

www.kingstonmertonrealnappies.org.uk

Cancel junk mail: www.stopjunkmail.org.uk and

www.mpsonline.org.uk/mpsr/mps_choosetype.html

Buy recycled:

www.recyclenow.com/shopping/index.html

Learn to sew, knit, upholster, darn and repair stuff: www.scola.ac.uk/courses/

St Dunstan's knitting circle is an informal group of all abilities which meets at St Dunstan's Church, Cheam 020 8641 1284

Useful resources for learning crafts and skills

from the Centre for Alternative Technology:

www.store.cat.org.uk

Health and Wellbeing

In 1883 average life expectancy in England and Wales was 44 for men and 47 for women; illness and death was a routine part of everyone's life.

Prior to the establishment of the National Health Service in 1948, local healthcare was rather ad hoc and had to be paid for. Wealthier people fared far better than the poor, as they could afford to pay for treatment or insurance. Poor people relied heavily on the charity of doctors or home remedies. There were no 'sickness benefits' as such, so people dreaded becoming ill as this could mean serious poverty and even ending their days in the workhouse. People had to pay to go into hospital - workers on lower pay could see a doctor there for free, but their non-earning wives and children were excluded. Sometimes they could pay for their treatment in instalments, or they might get reimbursed for hospital treatment, but they had to pay up front in the first place. In Beddington, many people took out a share in a Slate Club, Loan Club or Friendly Society in order to be able to pay doctor's bills when sick. The slate club was earlier known as the Coffin Club, the slate referring to the mortuary slab.

In the 19th century, medical help for the poor was the concern of philanthropists and social reformers like William Marsden who opened up a dispensary in 1828. Hospitals were often modest dwellings 'knocked through' and adapted (as in Sutton). In 1899, funds were raised to furnish and equip a pair of semi detached cottages in Bushy Road, six beds were provided. In 1902 Passmore Edwards donated money and transferred the hospital to Hill Road, initially with twelve beds, then 20. It became known as the Sutton Surrey Hospital, run mainly on voluntary contributions. Beddington Corner had an Isolation Hospital with nine living in a three- roomed cottage - TB and scarlet fever were commonplace.

Other local hospitals were established and expanded in the 1920s and 30s. The Beddington and Wallington War Memorial Hospital by Carshalton Park was opened in 1924 to provide for general medical and surgical cases. It had 26 beds and an emergency ward and had been planned since the Armistice in 1918. By 1932 it had 58 beds and could take up to eight maternity cases. In 1928 Sutton and Cheam parishes amalgamated and the Hill Road hospital became Sutton and Cheam hospital. In 1930, the site of



The Cottage Hospital, Rochester Road, Carshalton - precursor to the War Memorial Hospital

seven acres was acquired (where it stands now) and in 1931 it reopened as a much larger hospital.

Work on St Helier Hospital began in 1939 when the first stone was laid by Queen Mary and the first patients were admitted during the Second World War in 1941.

The Medical Officer, in his report in 1905 for Sutton Urban District Council, describes Sutton as: 'generally considered a healthy place to live' with the lowest general death rate recorded. During this period, cesspools were abolished and drains connected to the sewer in an adjacent district, much improving public health. However, there were still complaints

"I was taken out of the shelters with scarlet fever then, two days out of coming out of hospital, I got chicken pox and the ward I was in got bombed." Mary Wake

"If you had a cough you used to have lemon and honey. Or you might have a little block of camphorated oil which you'd tie round your neck in a little bag," Hattie Bellinger

"We used to have our medicine for our bowels on a Friday night - syrup of figs. And they'd go though our hair with a fine tooth comb and if they found a nit they'd drop it on a piece of paper." Bill Rickman

"I wanted to be engaged when I was 18 and father said "No, wait until you are 21 and then we'll talk about it.", and poor old Trevor died before I was 20. He got rapid Tuberculosis, which in those days they hadn't got a cure for." Ruby Tilston

"Poultices were terrible. If you had a boil or something, they got a bowl and put this ointment in it, but it was red hot and it was just so painful, just boiling hot, hotter it was the better, that was the theory, but it was just inhuman." Peter Curtis

from people living in houses near a council refuse tip and complaints about effluent on the land at the piggeries at Banstead Mental Hospital. In July 1936 there was a widespread gastro enteritis outbreak due to polluted water supply. Cheam wells were closed on July 8th and a full-time chemist appointed and a lab set up. There had been gross pollution from sewage.

Mr Paget Moffat, Acting Medical Officer, wrote in 1931 that: "TB has ceased to be the 'Captain of the Men of Death' its place has been taken by Heart Disease, under which heading are included diseases of the circulation system, chief amongst which is abnormally high blood pressure, the commonest disease in those who have reached or passed middle age. Large numbers of those of this age eat far too much meat and of many of them it is absolutely true that they are 'digging their graves with their teeth'".

Beauty

Wartime women showed incredible resourcefulness and entrepreneurial savvy when it came to sourcing beauty products. And like generations before and since them, they used old wives' wisdom to take from nature's larder - they were pioneers of natural products and beauty without cruelty, thanks to the success they had in making their own cosmetics or eking out what they had. Local chemists too invented their own products with minimally branded packaging.

For shampoo, women who kept hens had the benefit of being able to mix an egg with what shampoo was available to create a cleansing lather. The less fortunate experimented with what soap they could find, mixed with products such as vinegar. To combat hair grease they combed corn flour through their hair. To highlight, blondes used the age-old infusion of chamomile flowers; brunettes used one of crushed rosemary; coppery-toned redheads, a dilution of boiled-up carrots and some pluckier, plumier-toned women, one of boiled beetroot. A lemon rinse, another tried and tested standby, particularly for blondes, was recommended but hard to come by. As a setting lotion, many women sacrificed their sugar ration to mix it with water to keep curls in place.

To cleanse or moisturise, a mixture of olive oil (from the chemist) and beeswax could be used along with the paper from packets of margarine or lard, or even leftover fat such as mutton. All these helped remove dirt and grease and increased the suppleness of war-weary faces and hands. As a face mask, Fuller's Earth spread on the face made a popular treatment. The rejuvenating properties of potatoes, cucumbers and carrots were also tested. For deodorant, a dusting of bicarbonate of soda was said to dry up minor perspiration and help counteract any smells. For eye makeup, soot and burnt cork were pressed into action as eyeliner, shadow and mascara, as was shoe polish, though that was soon itself in short supply⁹⁸.

Happiness and Leisure



Games and entertainments were more simple and more sociable in the days before TV and games consoles. The sense of community was strong, fear of crime was less and there were neighbours and "aunties" who would look out for you and your friends. Street games were very popular because there was little or no traffic. Holidays were a week at the coast in the summer if you were lucky - holidays abroad were undreamt of for most people.

Larking about on Beddington Park Lake in the 1950s

"We used to play outside an awful lot but if we were indoors we used to play cards and Ludo, Snakes and Ladders, Snap and Happy Families." Mandy Suheimat

"Children made things: boys made trolleys with pram wheels and a couple of boards, and one pushed the other along the road." John Priest

"We used to leave our key on a piece of string behind the door." May Chappell

"My mum used to say I had to be in by 10pm and heaven help me if I was late. We used to use pipe cleaners to curl our hair before we went to bed and if we were late coming in we'd have to do it in the dark because mum had put the light out." Nell Kirby

"I used to go out with my sister on a Saturday night to a dance. And she was ten years older than me and when we used to come home she used to get to the street door and shout out: 'This is my brother bringing me home. In case any of you think it's a young man.' Because her husband was in the war and she wanted to tell the neighbours it wasn't a strange man.

At midnight you had the police walking around trying your door to make sure that you'd locked your door. You felt safe when they did that." Bill Rickman

"We had a gang which was just a small clique of boys. The Stayton Road gang used to put the fear of God into everyone. We used to go and play on the council dump except when the Stayton Road gang were there. We used to go into Cheam Park at night and play in the woods. There was an old cottage which became derelict and we said there was a ghost and one day the whole of Cheam Park school came down to see this ghost, and the ghost was me." Les Murrells

"I had a layout of Hornby trains and we used to run according to a timetable and the first train was at 7am and my mother used to bring us sandwiches, and the last train was at 9pm. I used to listen to Radio Normandy which was similar to Radio Luxembourg - it was broadcasting music at 8.30am" John Priest

"At parties we used to play Change Stations. Everyone used to sit in a ring and everyone was given the name of the station and then they used to call out the name of two stations and they used to have to change seats

"All Change" they'd call and then there was only one empty seat so if you didn't get back you were out. For music we used to play the piano, or the gramophone that you used to wind up." Ena Kemble

"My father used to say if you was out after 10 o'clock, you was up to no good. So 10 o'clock was the order of the day, right up until I left home." John Gallon

"We used to go to tea dance; it was lovely, there was tea and dancing and all the boys. We did that about once a week, before I met my husband. I met him at a railway dance at Wimbledon Town Hall." Dorothy Terry

"Our holidays consisted of the Sunday school outing. Usually a horse and cart with planks across it and off we used to go to a park for a picnic and to see the wildlife and it was the highlight of the year." John Gallon

"It was much more difficult for girls to get out and play, unless you had a brother. My mum said "No, you can't go out," but when I had three or four friends it was better. Boys got the upper hand because they were allowed to go, it didn't seem fair to us." Patricia Brittle

"We used to play a game called up the wall, and that was throw a ball up the wall and jump over it and the next one would do the same, but the people used to come out and tell us off for thumping on the wall. I was never alone, everybody was your auntie in the street and if you needed to go in talk, toilet, whatever, that was fine, and they'd always give you something to eat at lunchtime. My mother had to work all day, so they used to look after me. I always knew them as auntie this and uncle that." Ena Kemble

"You didn't need any social services with the neighbours, they got to you before the Social Services did ...you could leave your front doors open in the old days, you couldn't do that now." Ruby Bechtold

"Neighbours were a big thing, a very big thing. And it wasn't just neighbours, just about everybody had somebody living with them. We had people, there was a couple used to live upstairs, and a lady lived in what was I suppose the dining room, an Indian woman. And neighbours all had other people. Everybody seemed to let out a room." Peter Curtis



A new slide for St Helier 1954

Take the Carbon Challenge - Wellbeing

Sit down to talk with your family

FREE

Volunteer

FREE

Go for a walk

FREE

Invite someone for tea

FREE

Share a memory

FREE

Be kind

FREE

Tell a joke

FREE

Talk with a neighbour

FREE

Rediscover an old interest

FREE

Meet with friends

FREE

Be passionate

FREE

The Future:

It is predicted that climate change will impact hugely on people's health, with frequent heat waves, and increases in certain diseases. Hotter summers are likely to lead to additional skin cancer and cataract cases, as well as an increase in deaths at times of extreme temperatures. It is also predicted that malaria will make a return to Europe as temperatures rise⁹⁹.

Due to its size, complexity and use of technology, the NHS is one of the biggest carbon generators in the UK. It is responsible for 18 million tonnes of CO₂ each year, which represents 25% of all public sector emissions in England¹⁰⁰. As with all other areas of life, the NHS will have to work to reduce its carbon footprint in the future.

However, changing our lifestyles in response to climate change should also bring health benefits. Cutting down on car use will reduce car accidents, help reduce respiratory problems and increase general levels of fitness. Spending more time out doors when walking and cycling or growing our own food, for example, will have benefits for our mental health. Eating less meat and more fresh local fruit and vegetables will help reduce heart disease, obesity, and cancer. All of which will help to reduce demand on the NHS. It is likely that traditional herbal remedies will become popular again as antibiotics and expensive drugs are reserved for major illnesses¹⁰¹.

Achieving, long, happy lives without over-stretching the planet's resources is possible. Research over decades has suggested that levels of happiness have not increased since the 50's, despite the increase in incomes and consumption. The Happy Planet Index is an innovative index which measures the environmental efficiency with which country by country, people live long and happy lives¹⁰².

Do your bit:

Keep yourself healthy: Stay active, get fit, eat healthily - eat five portions of fruit and veg a day, eat less meat and exercise for at least 30mins everyday. Try growing and making your own home remedies for minor ailments.

Keep your mind active: Learn a new skill or teach what you know to someone else. Volunteer for a community group or charity, get involved in a local project and make a difference.

Keep sociable: Get to know your neighbours. Smile and chat with other people. Take part in the Big Lunch. Give something to others, even if it's just your time.

Low Energy Leisure: Traditional games, going for walks or bike rides and joining local clubs and societies are all ways we can enjoy ourselves without using power. The Carbon Challenge in this section has lots of suggestions of ways to amuse and entertain yourself, your friends and family without using lots of energy.

Where to find more info:

Learn a new skill/share your skills:

www.u3asutton.pbworks.com

www.scola.ac.uk

Keeping fit and healthy:

www.bbc.co.uk/health/healthy_living/fitness

Taking care of yourself and others:

www.hesperian.org/publications_download.php

Herbal and alternative medicines:

www.herbexpert.co.uk

Sutton Complementary Health Network

www.schn.org.uk/therapy

Grow Your Own Drugs; Easy Recipes for Natural Remedies and Beauty Treats by James Wong (Book and DVD)

Techniques to enhance problem solving and increase confidence:

www.centreforconfidence.co.uk

Get involved in local projects: www.ecolocal.org.uk

Volunteer: www.vcsutton.org.uk

The Big Lunch: www.thebiglunch.com/what-is-the-big-lunch/index.php

Local bike rides:

www.pollardshillcyclists.org.uk/beddingtonpark/

www.cyclecircuits.co.uk/croydon_urban_circuit_profiles.php

Local walks:

www.sutton.gov.uk/index.aspx?articleid=3874

Take a stand

FREE

Borrow a book from a library

FREE

Slow down

FREE

Look at the clouds

FREE

Population:

Population in Sutton and the UK has risen substantially over the past two hundred years. It is projected that there will be 195,757 people living in Sutton by 2031, and more than 70 million people in the UK as a whole^{103,104}.

It is estimated that each new birth in the UK will be responsible for 35 times more greenhouse gas emissions and associated environmental damage than a new birth in Bangladesh, and 160 times more than a birth in Ethiopia - both developing economies¹⁰⁵.

As long ago as 1798, Thomas Malthus, who was born in Dorking, just 12 miles from Sutton, examined the link between a growing population and limited resources. He found that that population invariably increases as resources increase, until the population reaches such a size that there are not enough resources to go around, and those on the margins of society begin to suffer¹⁰⁶.

What Thomas Malthus described in the 18th century is true today. A global population of over 6 billion people has only been possible as a result of the vast volumes of oil used in fertilizers and pesticides to produce sufficient food to support such a large population¹⁰⁷. However, the number of suffering people on the margins of society is proportionally larger than in Malthus's day.

In the future as oil and other resource supplies diminish, it seems likely that the world will be very much financially and materially poorer as the smaller supply of goods and services is divided among more people. Social security and healthcare may have to be drastically scaled back or even eliminated. There will be so little goods and services in total that society may not be able to set aside much for the disabled and elderly¹⁰⁸.

Given the fact that our world's carrying capacity is supported by oil, and that oil supplies are about to decline, it seems that a drop in population is inevitable. The human cost of such an involuntary population rebalancing is, of course, horrific. The hard fact remains that this is an issue we need to confront and plan for. There are things we will be able to do as individuals and communities to minimise the effects of such a decline, and we should all be deciding what those things need to be. It's never too early to prepare for a storm this big¹⁰⁹, whether by planning for smaller families, having families later in life, learning to enjoy life with fewer consumer goods or being more supportive for each other as communities. Who knows, our quality of life could actually improve as we consume less and share more¹¹⁰.



Westmead Allotments group social event

Local Government, Industry and Employment

Local Government

During the 19th century, society in the local villages was still run on very traditional lines. Each village, Cheam, Wallington, Beddington, Carshalton and Sutton had its own manor house and a Lord of the Manor who owned most of the parish. The Lord of the Manor would let some of his land to tenants who would farm it and pay him rent, others worked on his land. Not just a landlord and employer, the Lord of the Manor and other local gentry had considerable responsibilities for the wellbeing of the local community and many of the villagers were dependant on them for their well being.

From 1845, the Lord of the Manor in Sutton was Thomas Alcock, who had considerable influence on the area, selling land for road building and development in Sutton and financing Benhilton church and school. Samuel Gurney, of Carshalton, was listed in the 1861 census as also being a Member of Parliament, High Sheriff of Surrey and a Magistrate. In 1868, poverty amongst Beddington residents caused three local landowners, Messrs Tritton, Collyer-Bristow and Canon A. H. Bridges to set up a Provident Fund. Workers were asked to save a part of their wages to go towards the cost of winter clothes or their wives' confinements. The amounts saved were supplemented by the gentry¹¹¹.

The church was also central to village life and parish councils, known as vestries, were the main form of local administration. In theory, the vestry was open to all parishioners; in practise, members of the vestries were mainly local landowners and the Lord of the Manor. Vestry funds came from a church rate levied on the parish landowners, so they ensured that they controlled financial decisions. In an age when people 'knew their place', this was tacitly accepted as 'right and proper'.

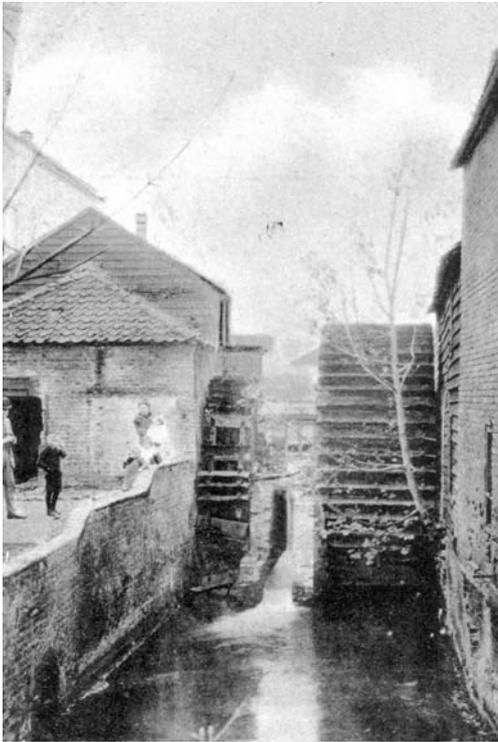
The church also played an important role in the lives of the poor. In 1846, a Carshalton Poor Rate Act was passed, defining how rates should be collected by the Vestry. In Carshalton in the 1880's there was a Soup Kitchen, Coal Club, a District Visiting Society, a Penny bank, a Band of Hope, a Mothers Meeting and a Fathers Meeting, all largely sponsored by the church¹¹².

As the 19th century progressed, local landowners sold off more of their estates for new housing and industry and, as a result, they became less socially and economically dominant and the old feudal dependencies declined. They were replaced by the new middle class, largely people who had made their money through industry and trade. In 1859 the sale of Carew Manor occurred after Charles Hallowell Carew was declared bankrupt by an Act of Parliament, after squandering the family estate through gambling. Such changes in land ownership, coupled with the social effects of the First World War, led to marked changes in local villages such as Beddington. By 1934, all the local gentry had disappeared and their estates had been broken up and built on.

Formal local government in the area began in 1883 with the formation of Local Boards in the two largest towns of Sutton and Carshalton. In 1915, the Urban District of Beddington & Wallington was formed and in 1928, Cheam merged with the Urban District of Sutton. Both Sutton & Cheam (in 1934) and Beddington & Wallington (in 1937) achieved the status of Municipal Borough; Carshalton remained an Urban District until the merger of all three authorities in 1965 and the formation of the London Borough of Sutton^{113, 114}.

Industry and Employment

Until Victorian times, the industrial history of the area was founded on the Watermills of the Wandle. Its steep (relative to its length) descent made it powerful and its reliable water supply meant it was the perfect resource to support the embryonic industry of the area. The Romans discovered that its fast flowing waters supplied enough power to turn water wheels to grind corn and the Domesday Book records at least 13 such mills: by 1610 this figure had grown to 24. At its height, some 60 wheels were being driven, leading to the variously phrased quote of its 'being the most industrialised river in the world'. Flour, snuff, copper, leather, printing, brewing all flourished.



The coming of the Industrial Revolution, meant many of the mills added steam power, but many waterwheels lasted into the 20th Century. The decline of the mills was probably caused by the increasing efficiency of the steam engine and very few survive. One that did, the Ravensbury Mill, was used to generate electricity during power shortages after World War II¹¹⁵.

Watercress

Watercress grows naturally in the river Wandle. In the middle ages there was a stream in Carshalton called the Cress Brook, from which it is thought the town gets its name. The first commercial watercress beds in England were created at Springhead in north Kent in 1805 and the first beds at Wandle Valley probably date from around 1850. The Ordnance Survey map of the area from the late 1860s shows only two beds. One of these was on the east side of the river above Goat Green (now the Wandle Valley wetlands - a nature reserve). The other was on the east side of London



Planting watercress at Guy Road, Beddington in the 1950s.

Road, Hackbridge. The industry expanded slowly until the early 20th century when nine beds were working, often combined with market gardening and greenhouses¹¹⁶.

The cultivation process was very simple: watercress was planted in shallow beds and the operator would flood the plants, temporarily, to protect them from frost and to encourage early growth. As a result, watercress became available almost all year round, one of the first foods to do so, and reached its peak in the early 1930's. It went into rapid decline after 1937 when it was wrongly blamed for an outbreak of typhoid in Croydon. The rate of decline increased when a greater variety of fresh vegetables became available through improvements in transportation and refrigeration and the realisation by landowners that their land could be used more profitably for building¹¹⁷.

Lavender

Lavender and herbs would have been grown locally on a small scale for centuries. Large scale cultivation seems to have started in Mitcham in the 1700s. Mr Potter started growing herbs there about 1769. The business was taken over by Moore and by 1805 he had 500 acres planted with peppermint, lavender and other herbs.

The industry expanded considerably in the course of the 19th century and the cultivation spread into Beddington, Wallington, Carshalton and Sutton. Some of the herbs were simply dried and sold, but lavender and mint were grown for oil which was extracted by distillation. The lavender was cut as the flowers were beginning to fade and the mint was harvested at about the same time. Many Kentish and Irish people came to work on the harvest and lived in tents and other improvised shelters scattered over the fields.

It took about three-quarters of a ton of dry herbs to make 8 or 9 pounds of mint oil. The same amount of lavender would produce 11 or 12 pounds of oil. The oil was therefore very expensive, but it was also very strong so a little would go a long way in cosmetics or flavouring¹¹⁸. Lavender production returned to Carshalton in the 1990s thanks to the Carshalton Lavender Project.



Preparing the retort for distilling mint at Miller's works, Hackbridge



Revival of local lavender production

Chemicals

Chemical production started in 1922 with the Carshalton Chemical Company in Mill Lane. It was bought by The Distillers Company in 1927 who started manufacturing solvents and plasticisers and went on to make over 200 chemicals used in food and pharmacy as well as paint and plastics¹¹⁹. The company was eventually taken over in 1967 by British Petroleum (BP) who continued operations there until 1991¹²⁰.

Vinyl Products Ltd followed in 1943. It started manufacturing PVC components and pastes just after the Second World War and in 1967 commissioned a new 25 ton "reactor"¹²¹, then the largest in Europe, to produce VCM (Vinyl Chloride Monomer), a liquid form from which the polymer PVC is made¹²². It was taken over by Unilever in 1968 and the site eventually closed in the mid-1990's.

Radio, Telecommunications

Stanley Mullard, a radio engineer and a Fellow of the Institution of Electrical Engineers, was head of Ediswans research laboratory when that company began experimenting with silica (fused quartz) instead of glass envelopments for filament lamps. In 1916 he was commissioned in the Royal Naval Volunteer Reserve and posted to the wireless telegraphy establishment to assist in developing silica radio valves for high powered wireless transmitters¹²³. His work proved successful and in 1920 he founded his own company, Mullards. With the formation of the British Broadcasting Corporation (BBC) in 1923, radio became very popular and with it the demand for valves increased. It wasn't long before Mullards started to expand, moving from Hammersmith to Balham and finally to Hackbridge in the mid 1920's. A lengthy and costly legal battle with Marconi, who claimed infringement of their patent, meant that Mullard had to seek additional investment to further his research. Phillips took a 50% stake in the company in 1924 and eventually took it over in 1927. The court case was resolved when an appeal to the House of Lords ruled in Mullards favour¹²⁴. Under Phillips the company progressed to making receiving valves, televisions, hi-fi's, computers, electronic guidance systems and electron channel plates used on the satellite visiting Halley's comet¹²⁵. The factory finally closed in the 1990's¹²⁶.



The Mullards Factory, Hackbridge

In 1935 Marconi set up Marconi's Wireless Telegraph Co Ltd & Aircraft Wireless Establishment in Hackbridge. The close proximity of Croydon Airport, with its growing stature as an international airport, may have prompted this decision¹²⁷. It was responsible for the design and manufacture of crystals and specialised in crystal-derived products¹²⁸.

Hackbridge Cable Company was formed in 1917 on a site that was also known as Kelvin Cable Works. William Thomson (Lord Kelvin) was an eminent mathematician and physicist who in 1856 became Director of the newly formed Atlantic Telegraph Company. Their objective was to establish a method of telegraphic communication via an underwater cable between the USA and Europe. By 1858 Thomson had developed a complete submarine telegraph system capable of sending a character every 3.5 seconds and the first cable was laid in 1866^{129,130}. Why the Hackbridge site was also known as Kelvin Cable Works and whether there is a link to Lord Kelvin is unclear. The Hackbridge Cable Company was taken over in 1967 by General Electric Company^{131,132}.

Chalk

One of Surrey's most valuable commercial assets has been chalk. Its principal use was in the manufacture of lime and cement and it is believed that the extensive chalk pit, on which B&Q stands today, was mainly dug during the construction of St Paul's Cathedral when the chalk was burnt for the lime used in the mortar¹³³.

Brick

The expansion of Sutton following the arrival of the railway and mains water in the mid 1800's gave impetus to a fledgling brick industry in which Sutton and Carshalton became the centre of manufacture in the area¹³⁴; one of the first recorded brickmakers was a Thomas Stephens in 1786¹³⁵.

The scale of the industry appears to have been large. In 1887 the Carshalton Gas Company installed a new gas holder and the earth that had been excavated was sold to a local builder with the result that approximately 360,000 bricks were produced from the spoil. Ironically, the housing expansion that took place north of Carshalton during the 1920's and 1930's seems to have brought about the demise of brick production when demand could not be met by local suppliers¹³⁶.

Family businesses

W.A.Truelove, funeral directors, has been a family owned and run firm since its inception in 1885. Starting at an address in Sutton, the founder, Walter Andrew and his wife Annie, built up the funeral directing and monumental masonry business. In 1921, Walter's successor Harry Alexander, took the business through a period of growth, opening two new branches in Sutton, as well as branches in Wallington, Epsom and Cheam. The second world war came and went, and all Truelove premises suffered bomb damage which was quickly repaired. Trueloves was the first British firm to introduce London ambulances to their fleet as removal vehicles, a move which has proved particularly popular for nursing homes. The Company was also one of the first to offer an embalming service. The family tradition continues to this day, with Raymond Walter who is the Chairman now overseeing the firm. His two sons, Simon and David are also taking up the reins¹³⁷.

The Odd cricket bat manufacturers started in 1880 in Croydon by Amos Odd, who was once a coach builder but started making cricket bats after losing his job. He then moved his business to Sutton in 1900. The business was taken over in 1917 by his son Montagu Odd, who famously made cricket bats for WG Grace. By 1927 they sold a large array of cricketing goods and ran a cricketing school. An advert in 1928 shows the shop also dealing in other sporting goods, such as footballs and hockey sticks, as well as toys. Originally, the bats were made from abundant supplies of locally grown willow, but by 1951, when Montague died, there was only one such supplier in the area. The business lasted a third generation under the ownership of Philip Odd, whose brother George became a boxer and then boxing writer. In 1977, upon Philip's retirement the business closed down for good after 97 years.¹³⁸



A W Odd, cricket bat Manufacturer



Local produce on sale at Wallington Farmer's Market - stallholders are mainly small family run businesses

Employment

"My sister went to a laundry which my mother was disgusted about - messing about with other people's laundry. In the war you had to go into war work if you weren't called up." Nell Kirby

"My dad was a taxi driver and he used to have to go out early in the morning to pay the rent and my mum used to stand on the street waiting for him to bring her the fare. And a neighbour saw her standing on the corner and said, 'Don't stand there someone will try to pick you up!', so she gave Mum the rent." Francis Tingey-Smith

"I was 14 when I left school and I went to Epsom where I worked for 14 years for a chartered civil engineers doing office work. I loved it there. I used to earn thirty bob and I used to give my mum housekeeping and saved a little bit to go shopping. I bought stockings. I left when I got married. We lived with my mum after we got married, with my mum and my sisters." Hilda Pollard

"I took an exam to get a job in the government because so many men were going to war that they were looking for women to take the place of the men and I got in. I did engineering drawing and then went onto maps. I had to swear never to divulge anything. I took to drawing maps and plans and eventually I ended up with road maps. I never spent my money. I saved it and it gave me a deposit for a house." Madge Quaintance

"When I left school I went into an office and earned £2 10s which was quite good money then. I spent my money on clothes. Of course I gave some money for my keep at home. I stayed there for 14 years until I got married. I did part time secretarial work after that." Pauline Livings

"Both my parents went to work cleaning people's houses so we had to do the work indoors." Eileen Reed

"My dad was a firewood merchant, he used to split trees or timber. He had an electric machine in the yard which used to saw the wood up into shorter lengths. They used a sledgehammer to split them, cross cut them, put them on a seam and make logs. We used to make bundles of wood then like that and we used to supply them to shops and then they resold them. We did the work and they got the profit. The wood came from the houses, when they brought down houses " Bill Rickman

"My dad worked on the Surrey commercial docks and my mum was a cleaner until she got a job as a cook in a posh house in Battersea. When I first started work I earned half a crown which was two shillings and a sixpence. I had to give two shillings to my mum for my keep and sixpence had to last the keep for whatever you wanted. I was on munitions. I was a welder. I used to weld the two sides of jerry cans together." Hattie Bellinger

"I became a secretary. Up until 13 I was in a normal school and then 13 - 15 I was in commercial training at Pittmans College; short hand, typewriting and bookkeeping. I got £3 15s. Some went to my mother for housekeeping, and she always taught us, my sister and I to save for a rainy day, so I saved." Joy Juster

"I left school at 14 and took a job as a farm servant at £1 17s 6d a week. It made a difference to the family budget to have £1 10s and I had 2 and sixpence for my pocket money." John Gallon

"When I was 15 I stayed on (at school) because I wanted to be a nurse. When I was sixteen I went in to the village post office to work there and I earned 12 shillings a week. I couldn't become a nurse till I was 18 and by then I didn't want to so I took the civil service exam and went to work at Post Office Headquarters." Margaret Beardon



Cheam pottery has been produced since the medieval period and in the 19th century it was a significant local industry. Pictured - local pottery on sale at the Environmental Fair - www.ecolocal.org.uk/efair.

The Future:

As we move into an era of oil depletion and energy constraint, everything from transportation to medicine and food will be affected because almost everything we do is dependent on oil. The transition to a future with a reduced oil supply will require the development of clean, reliable, and renewable energy sources and reduced oil consumption.

This means that we in the West will need to learn to live with less - less growth, fewer goods and less material wealth. However, beyond a certain point, having added income does not lead to higher well-being - what economists call diminishing returns. If Western societies consumed fewer resources, there would be little overall negative impact on their well-being. Material factors are only part of what constitutes the good life and working shorter hours, consuming less and living with less personal debt will free up our time to take a more active part in our communities¹³⁹.

It is likely there will be a period of profound upheaval; already the U.N. states that more refugees are now displaced by environmental disasters than by war, with more than 25 million climate refugees (ecologically induced migrants), and experts have projected that number will double within the next five years to over 50 million¹⁴⁰.

The changes that lie ahead must therefore be planned for, on a personal, local, national and global level, to make sure that everyone has fair access to energy and resources - and much work is being done on this. Systems to help us do this have been proposed. "Tradable Energy Quotas" (TEQs) offers an energy rationing system to enable nations to reduce their emissions of greenhouse gases and cut their use of oil, gas and coal, and to ensure fair access to energy for all. Every adult is given an equal free entitlement of TEQ units. If you use less than your entitlement of units, you can sell your surplus. If you need more, you can buy them¹⁴¹. Cap and Share¹⁴² works on similar lines, while Contraction and Convergence¹⁴³ and The Oil Depletion Protocol offers global plans for a sensible energy future¹⁴⁴.

Do your bit:

Buy local: Supporting locally owned businesses ensures more money re-circulates in the local economy than with internationally owned businesses, as they often purchase from other local businesses and service providers. Over 50 per cent of the turnover of independent retailers goes to the local community, compared with just 5% from supermarkets¹⁴⁵.

Local Currencies also keep money in the local economy and support local businesses. A LETS scheme (Local Exchange and Trading Scheme) allows local people to share and exchange skills and services without using money,

Get involved: Our low energy future is going to require changes in public policy and planning consent for local energy production. You can help this process by getting involved in local decision making and consultations contacting your local representatives, your council or attending local meetings.

Write to your MP and ask them to press the government to adopt TEQs or Cap and Share and the Oil Depletion Protocol and to press the international community to adopt Contraction and Convergence.

Try it yourself: Have a go at living with an energy rationing system by taking the carbon challenge in this book.

Where to find more info:

LetsLink London: www.letslinkuk.net

Start your own currency like the brixton pound:

www.brixtonpound.org

Get involved in the Carshalton Lavender Project:

www.carshaltonlavender.org

Get involved in local decisions:

www.sutton.gov.uk/index.aspx?articleid=2257

Contact your Councillors, MP, MEPs, or London

Assembly Members for free: www.writetothem.com

Find out what your MP gets up to in Westminster:

www.theyworkforyou.com

Report, view, or discuss local problems:

www.fixmystreet.com

Personal carbon rationing:

www.theministryoftryingtodosomethingaboutit.wordpress.com

Tradable Energy Quotas: www.teqs.net

Cap and share: www.capandshare.org

Contraction and Convergence:

climatejustice.org.uk/about/contractionandconvergence

Oil Depletion Protocol: www.oildepletionprotocol.org



Park Lane Wallington, early 1900's



Beddington Zero Emission Development, early 2000's

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Help with a low energy lifestyle?

Cycle Maintenance Training Courses

Designed for people who would like to gain an understanding of how to look after their bicycles and carry out basic and intermediate standard repairs. Learn how to repair a puncture, adjust your brakes, adjust your gears and chain and perform basic maintenance. Courses are also available for local youth clubs and schools.

Inclusive Cycling Sessions

Want to get some gentle exercise or learn to ride a bike? We have a range of bikes, adapted trikes and special cycles such as side-by-sides so that anybody can get cycling. Sessions are run at safe off road sites where our cycle instructors provide support to take it at your own pace. We also provide sessions for special schools.

Cycle Roadshows and Dr Bike - at your event!

EcoLocal can provide a range of cycles including trikes and adapted cycles plus a Dr Bike service for your event.

EcoLocal Deliveries

EcoLocal deliveries is a local cycle based delivery service, carrying parcels and other goods for a range of local businesses and statutory agencies. Why not try us? Also, we are always interested to hear from potential cycle delivery riders who are motivated by cycling - please call to find out more.

Mobile Cycle Mechanic

We'll come and fix your bike at your home or local workplace. Our service is friendly and responsive, meets your needs and is flexible. Includes servicing, punctures, wheel truing and general repairs. We can also collect and deliver.

Carshalton Community Allotment

If you haven't got space to grow food at home or would like to garden with other people, and benefit from positive outdoor activity, then you are welcome to join in at the community allotment on Westmead allotments, Carshalton.

Food Growing Courses

EcoLocal's six week beginners food growing course covers everything you need to know to get started growing your own organic food. One day workshops in container gardening, herb growing, fruit and kitchen gardening are also available.

Beanstalk Project

Fun hands on activities for families with young children. Beanstalk sessions give you the basics to get started growing food and make it fun for your children. Activities often provide free seeds or plants. To hear about session dates and venues email beanstalk@ecolocal.org.uk

Farmers' Markets

We are lucky to have a fantastic Farmers' Market in Wallington and Sutton. Established in 1999, this market offers quality local produce direct from the producer. Purchase some of the freshest, most delicious food you'll ever taste; fruit, veg., meat, pies, bread, seafood, eggs, cheese, cakes and more. Support local farmers and enjoy a friendly market atmosphere. It's a truly low carbon, sustainable shopping experience! Wallington Farmers' Market is held on the 2nd Saturday of each month at outside Wallington Town Hall, and in Sutton Town Square on the 4th Saturday of each month.

VegVan

This converted milkfloat sells fruit and veg. with lower food miles than the supermarkets. Find the VegVan at Hackbridge Station on Wednesday evenings, and other regular venues around the borough – see www.vegvan.org.uk

Sutton Community Farm

To take part in local food production on the 7.5 acre community farm at Woodcote smallholdings phone 020 8404 7085 or see www.suttoncommunityfarm.org.uk.

Mobile Solar Power

Mobile power station available for events and festivals - call EcoLocal

for more information see
www.ecolocal.org.uk
or call 020 8770 6611

See also:
www.oneplanetsutton.org

Our Low Energy Heritage

is a project which looks at life in the London Borough of Sutton in times past and records the experiences of the older generation, who lived through times of shortage, when energy was less cheap and less available, so that we can use their knowledge and experiences to help us, and future generations, tackle issues such as climate change and an increasingly expensive, less plentiful energy supply.

Take the Carbon Challenge:

The Carbon Challenge is based on the principles of WWII rationing. Throughout this booklet you will find coupons reflecting the amount of CO₂ produced by a range of everyday activities and purchases. **Each person is allowed 40 carbon rations a month**, which represents the allowance each person would need to use if we were all to reduce our CO₂ emissions to what is thought to be a fair and safe level. For everyday activities, each coupon is valid for the month, so one coupon will give you 1/2 an hour of TV, everyday for a month. For purchases of transport, food or clothing, each coupon states how much of each you get per coupon. The first coupon is spent for you on compulsory drinking water; the other 39 you can choose how to spend. You can even save them for a big purchase, such as a new bike or a holiday. Don't forget some activities (such as having a bath) will take more than one coupon (eg. for heat and water). Why not have a go and see how you can manage for a month - or even a year - it will change the way you think about the things you do everyday!

Thanks to the Ministry of Trying to Do Something About It for letting us use their Carbon Ration Book¹⁴⁶.

One Month's Carbon Ration

Compulsory drinking water							

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