

# Greener Grinstead

## CLIMATE CHANGE - Some Facts.

**Almost half of the UK's carbon dioxide emissions, the main greenhouse gas which causes climate change, actually come from the things we do every day.**

Things like leaving lights on unnecessarily or overfilling the kettle all waste energy and result in needless carbon dioxide emissions.

This section looks at the impact we are having on climate change and what's being done to help fight it.

Climate changes are natural phenomena that have been happening since the Earth was created approximately 4.6 billion years ago, but recently there has been unprecedented warming.

### What is the impact of climate change in the UK?

We are already seeing the effects of climate change here in the UK. Winters are becoming milder, and rainfall patterns are shifting, making droughts and floods more common. There is still time to reduce the impact we are having on climate change if we act now. But if we don't, the unpredictable weather variations we are already experiencing will become more severe.

### Current climate change impacts

The effects of climate change can be seen in our every day lives. During the last 40 years, the UK's winters have grown warmer, with heavier bursts of rain. The summers are growing drier and hotter - one of the starkest changes over the last 200 years is our summers have become drier causing widespread water shortages. The last 10 years have seen nine of the ten warmest years since records began. And during August 2003, the hottest temperature ever recorded in the UK was taken in Brogdale in Kent. It was 38.5°C!

Slowly but surely, much of the UK is experiencing extreme climates more associated with our European neighbours.

The Thames barrier was raised three times a year during its first five years of operation. In the last few years it has been raised on average 13 times a year.

Many gardeners are finding their lawns need mowing in winter and snowdrops are blooming before Christmas, as winters grow milder; with fewer frosts, cold snaps and



snowfalls. Spring is arriving earlier and autumn later - the growing season for plants in the UK has expanded by about a month since 1900.

However, flooding is a looming threat over much of the country. Severe storms and rising seas - some 10cm higher than sea level in 1900 are slowly eating away at our coastline.

As rainfall comes down in deluges, rivers are bursting their banks more often, with flash-floods becoming a more common occurrence. The floods experienced in the UK during the Autumn and Winter of 2000 were the worst for 270 years in some areas. This flooding cost the farming industry nearly £500 million.

### Predicted climate change impacts

By the end of the century, the average yearly temperature of the UK could be between 1°C and 4.5°C hotter than today's temperatures, depending on how high greenhouse gas levels rise. The land will heat up faster than the sea, and the South East more than the North West. Summer and Autumn will generally heat up more than winter and spring, and as the nights turn hotter and stickier - the sort of temperatures we currently get at 7pm could be experienced at 11pm by 2100. Greater threat from wildfires as greenhouse gas levels rise By the end of this century, we

could be facing intense heatwaves reaching up to mid 40°C in some places, more like the heat in 2003 that killed thousands of people across the rest of Europe. Temperatures as high as this have probably not been experienced since the last great warm period over 100,000 years ago, at the same time that hippos roamed England.

As the summers become hotter and drier, drought could become a major threat. Anyone who lived through the long, hot summer of 1976 will remember the drought that reached crisis proportions: water rationing, building subsidence, withered crops, diseased trees, wildfires and deaths from the heat.

Such could be the face of summers to come if we don't learn to change our behaviours and take steps to prevent further climate change. The animal and plant worlds could also be thrown into turmoil. Many species that we traditionally associate with Britain may disappear, while there could be an increase in insects, with bloodsucking ticks, scorpions and poisonous spiders becoming a feature of everyday life.

Needless to say, the white Christmas could become a thing of the past, while the UK's green and pleasant land will become more brown and unpleasant as the climate becomes less suited to growing lawns and gardens.

The effects on health could also be profound. Aside from obvious issues like hay fever, there could be an increase in catarracts, skin cancer and even tropical diseases such as Dengue fever and West Nile virus. Even now, mosquitoes carrying such diseases are invading the US because of rising temperatures.

Overall, it's clear that the cost to society, the environment, our health and the economy is going to far outweigh any perceived benefits of a warmer UK. We all have a responsibility, complacency is not an option, **we must all do our bit!**