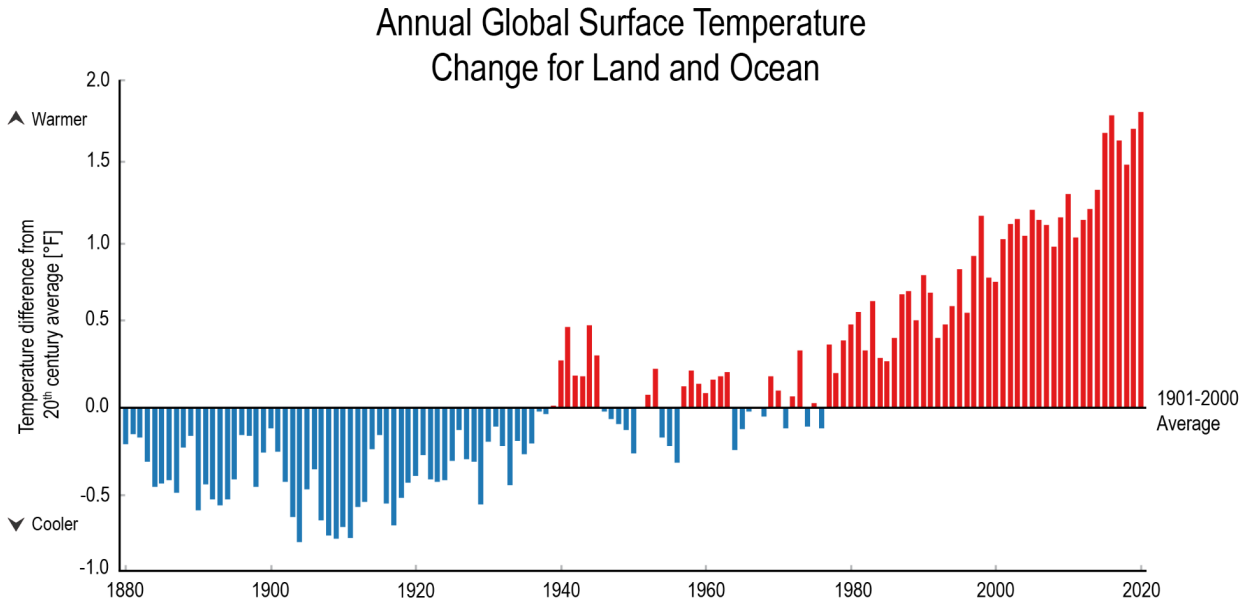
RISE TO ACTION - THE CLIMATE CRISIS AND WHAT WE CAN DO

Climate change is happening now and it's happening here. From record-breaking temperatures to flash flooding and sea level rise, we are already seeing the climate crisis at first hand. But we have the power to make a difference.

RISE! is Swale Friends of the Earth's campaign to **RISE to Action**. We want everyone talking to each other about the climate crisis, all the way up to November's crucial international climate talks COP26 - and beyond.

"Human-induced climate change is already affecting many weather and climate extremes in every region across the globe."

UN Intergovernmental Panel on Climate Change (IPCC)[1]



THE FACTS

Between 1880 and 2020, **the 19 warmest years on record have all occurred within the past 20 years**. Our additional greenhouse gases have **increased the temperature of the Earth by over 1°C.** It has caused sea levels **to rise by over 20cm** since the beginning of the 20th century.[2]

Whatever happens, current emission rates of atmospheric greenhouse gases are likely to lead to global warming of 1.5℃ by 2030 and well over 2℃ above pre-industrial levels by the end of the century – a devastating outcome – unless deep reductions and removals of CO_2 and other greenhouse gas emissions occur in the coming decades.[3]

What might climate change mean for those of us living in Swale?

It means we may not be immune from the dangers of extremes of heat or intense rainfall.

Did you know that the Environment Agency's Flood Risk Strategy for England is already planning for a 2°C warming and getting prepared for a possible 4°C warming**?** [4]

According to the latest independent climate change risk assessment for the UK, climate change in the future will "continue and intensify depending on how successful we are at reducing greenhouse gas emissions." [5]

Flooding - high temperatures - extreme weather - drought - sea level rise

The following projections are measured from a 1981-2000 baseline. They show the range of outcomes from a possible climate warming of 2°C to above 4°C above pre-industrial levels by 2100 (**2018 UK Climate Projections**):

Annual temperatures are expected to rise approximately 1.3ºC by the 2050s and between 1.4 and 2.4ºC by the 2080s. [5]

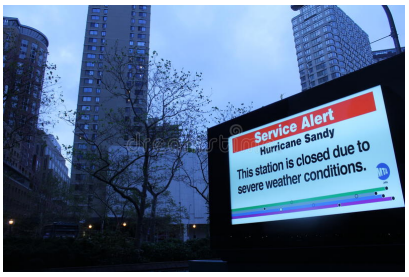
Rainfall in winter will increase approximately 6% by 2050s to 8-13% by 2080s, leading to an increase in the likelihood of flooding of infrastructure, businesses and homes.[5]

But **summer rainfall** is expected to decrease 15% by 2050 and 15-22% by 2080s. Water scarcity is projected to become more prevalent.[5]

In terms of **weather extremes**, temperatures above 35ºC will become more common in the south-east and temperatures of 40ºC will be more likely. Up until now, summers of above 40ºC days have a return time of 100-300 years. In a high climate change scenario, this could increase to once every 3.5 years by 2100.[5]

A **25% increase in the intensity of rainfall is projected**, particularly in the south-east. Even in summer, when overall there will be more drier days, rainfall will become more intense.[5]

Warmer ocean temperatures and higher sea levels are expected to intensify the intensity and impacts of hurricanes and tropical cyclones globally.



NOAA (the US National Oceanic and Atmospheric Administration) has suggested that an increase in Category 4 and 5 hurricanes is likely, with hurricane wind speeds increasing by up to 10 percent. Sea level rise intensified the impact of Hurricane Sandy which caused an estimated $65 billion in damages in New York, New Jersey, and Connecticut in 2012.[6] Heat extremes will also have an impact on health and well-being, and more intense rainfall has implications for agriculture, industry and infrastructure

Sea Level Rise in the south of UK

Sea level rise is expected to be between 23 and 29cms by 2050's, and 45-78cms by 2080's. It is expected to be greater in the south of England than in other parts of the UK. That could lead to saltwater seeping into agricultural land and flooding of coastal communities, leading to serious economic damage.[5]

Flood Risks in Swale

Many people will remember the tidal floods of 1953, 1978 and 2013 in parts of the Isle of Sheppey, Sittingbourne and Faversham. Swale has 111km of coastline, and the Medway, Swale and Thames estuaries are the principal source of flooding. Much of Swale is low-lying and the impermeable London clay has allowed the wetlands, creeks and small streams, so characteristic and beloved of the area, to form. The northern part of the Isle of Sheppey is mostly on clay hills which form cliffs and are subject to erosion from the sea.

The permeable chalk bedrock in the south of the borough can become saturated during periods of prolonged rainfall. During very wet periods the water table may rise to the surface, causing groundwater flooding or temporary springs.

16,110 dwellings in Swale considered to be at risk from tidal or river flooding 9,382 of these are at a medium-high risk of flooding (1% /1 event in 100 years).[6]

Sheerness - 6789 dwellings considered to be at overall risk (0.1% /1 event in 1000 years), 5185 considered to be at medium-high risk (1% /1 event in 100 years). [7]

Previous projections about weather outcomes may already be conservative, according to the IPCC, citing the ever-increasing frequency of recent climate events, such as the wildfires in the US and Greece, extreme heat waves in southern Europe and Canada, and localised flash flooding in London.

The rest of the world

Extreme weather events, high temperatures, droughts, cyclones and inexorable sea level rise are already imperilling and impoverishing the lives, health and security of many people, mainly in the southern hemisphere, leading to serious implications for global food security, migration and conflict over resources. We aren't just an island. Global trade and communications mean we're all interconnected across the world.

Rise to action! A win-win for people and planet

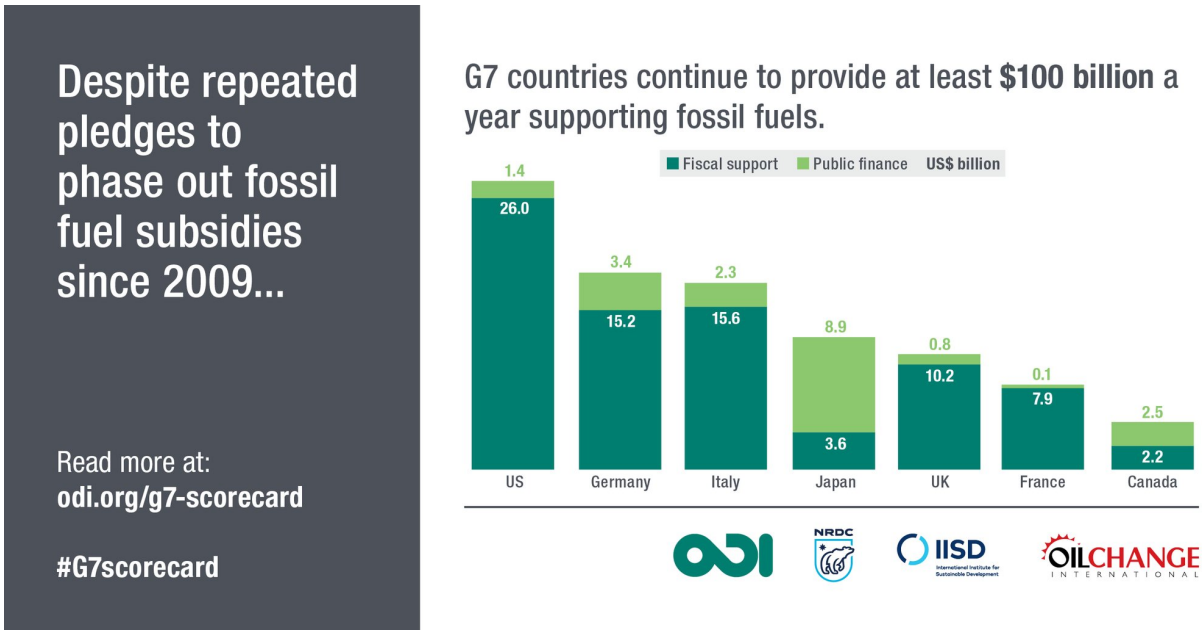
As Professor Mark Maslin, a member of the Climate Crisis Advisory Group, says, **"Over 40% of the world's population live less than 60 miles from a coast and will be affected by extreme sea level rise…many small island states are already being abandoned."**[8]

People are already trying to claim that climate change is too expensive to fix. But as Mark Maslin points out, “economists suggest we could fix climate change now by spending 1% of world GDP. This cost could be less if we count the cost savings due to improved human health and expansion of the global green economy.”[9]

But “if we don’t act now, by 2050 it will cost over 20% of world GDP. Climate change is too expensive *not* to fix.”[9]

RISE - IT’S NOT TOO LATE TO MAKE A DIFFERENCE

Currently the fossil fuel industry receives $5.2 trillion in subsidies….which amounts to 6% of world GDP.[8] That’s a lot of money to do something positive with.



It means switching investment from fossil fuels to clean, green technologies, such as wind and solar power, electric vehicle charging, public transport, energy efficiency and heat pumps. And planning for a decarbonised, sustainable and fairer future where nature is protected and enhanced.

We know the solutions, we can solve the problem, we just need the political will - and we need action to be taken at the scale and speed necessary to avert climate disaster.

COP26 - Step Up the Action

World leaders must step up their action to cut carbon emissions. At the COP26 climate talks in Glasgow in November, they will be discussing progress against commitments made at the 2015 Paris climate talks and submitting new national pledges on emissions reduction. COP26 will be a test to see if countries are prepared to **close the gap to reach the emission cuts we need to stay below 1.5°C** (the recognised maximum temperature by which the planet can warm before irreversible damage is caused)

Protect and regenerate to remove carbon - As well as **reducing** emissions, we also need to **remove** them from the atmosphere, and then repair our natural life support systems.[8] All forms of natural habitats have a big role to play here. Swale has lots of saltmarsh, yet many findings report on 'major risk of saltmarsh loss', for example, an **'80% probability of marsh retreat possibly occurring in southern and eastern England by 2040'.**[10]

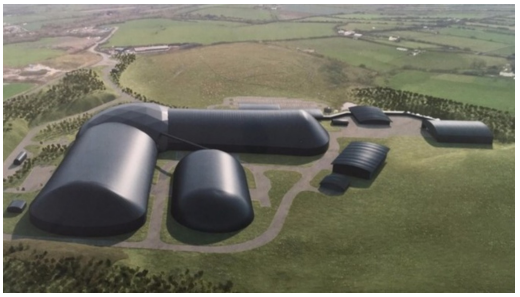
Whatever technological solutions we might pursue, we must not undermine natural regenerative solutions to this crisis. Protecting and expanding nature will be essential: keeping floodplains as floodplains, and nurturing and expanding existing woodland and open pasture, Swale's bountiful natural assets, will help us remove accumulating, polluting and dangerous levels of greenhouse gases.

Think global, act local:

Local authorities - Our local councils, Swale Borough Council and Faversham Town Council, have **declared a climate and ecological emergency.** This is a welcome and positive step forward, reflecting local concerns. SBC has also passed a number of positive policies and set targets to cut carbon emissions and make Swale cleaner, safer and more sustainable.

We need to ensure progress is monitored and hold our councillors to account to meet the targets set, for example by ensuring that planning and development is low carbon with solar panels and heat pumps, and that it does not increase traffic and polluting emissions.

UK Government



In the UK**,** the government has set a target in law of **net zero carbon emissions by 2050**, which is a positive step. But it must follow this with action and end its support for fossil fuels:

- ❖ Stop financing fossil fuels overseas (the government refuses to withdraw its $1 billion of support for a gas mega project in Mozambique)
- ❖ End oil and gas extraction in the North Sea and across the UK in a way that's fair to the workers in those industries, by investing instead in green jobs and skills
- ❖ Stop all extraction of coal - including the proposed mine near Whitehaven in Cumbria

Will you RISE to Action?

WHAT YOU CAN DO - 1,000 Actions on Climate

We can RISE to this more than dramatic occasion with personal and political action.There is no underestimating how important it is to reduce our emissions immediately, now.

Make your own pledge and contribute to 1,000 Actions on Climate to reduce your own emissions and push for industry and government to take action, such as:

- ***walk and cycle more and fly less on holiday***
- ***save energy at home and choose a greener electricity supplier***
- ***move your pension and savings out of fossil fuel investments and tell Kent County Council to do the same***
- ***Put pressure on politicians by writing to your MP or local councillor to urge stronger action on climate change and more sustainable development***

Find out more about 1,000 ACTIONS ON CLIMATE

and make your online pledge at www.swalefoe.org

Will you RISE to action?

References:

1. Intergovernmental Panel on Climate Change – Sixth Assessment Report (2021)

2. Professor Mark Maslin – Climate Change: A Very Short Introduction (Oxford University Press)

3. David King and Jane Lichtenstein, Centre for Climate Repair, University of Cambridge – in an article 'Climate Repair: three things we must do now to stabilise the planet' published in The Conversation 12/8/21

4. Environment Agency – 'National Flood and Coastal Erosion Risk Management Strategy for England' (2020)

5. The Third UK Climate Change Risk Assessment – Summary for England (2021)

6. Center for Climate and Energy Solutions: Hurricanes and Climate Change.

7. Flood Risk in Communities – Swale (2017)

8. Professor Mark Maslin – 'How to Save Our Planet'

9. David King and Jane Lichtenstein, Centre for Climate Repair, University of Cambridge – in an article 'Climate Repair: three things we must do now to stabilise the planet' published in The Conversation 12/8/21

10. The Third UK Climate Change Risk Assessment – Summary for England (2021)