



Newsletter February 2022

Many thanks to everyone who has helped so far in enabling Save the Severn to take legal action to stop radioactive mud being dumped in the Severn Estuary.

Stop Hinkley's supporters contributions were fantastic and enabled Save The Severn to start the legal process for a Judicial Review to halt EDF's destruction of the most protected Marine Environment in the UK.

The Judicial Review will take place in London on 8-10th March. By then we will need a further £50,000 to support our specialist environmental solicitors Leigh Day to continue representing us in Court.

Tarian Hafren - Save the Severn is a group of scientists, experts, individuals and organisations, including Stop Hinkley. We are calling on the Marine Management Organisation to revoke the license they granted to EDF to dredge and dump more mud, contaminated by the Hinkley A and B nuclear power stations, onto the tidal mudflats off Portishead this coming Spring.

This dumping is a result of Hinkley Point C, a new nuclear power station, which will itself kill billions of fish during its sixty year operation.

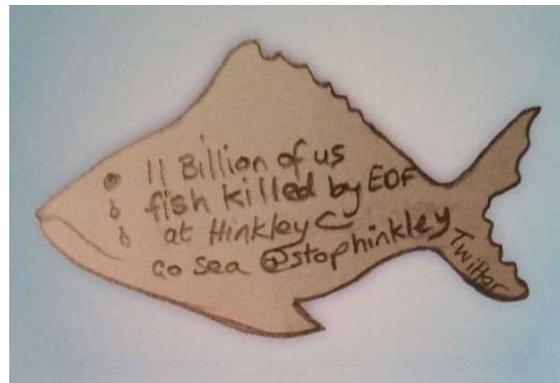
These are the three key reasons why the Severn Estuary is under threat from EDF:-

1. Over the last 70 years the Hinkley A and B power stations have been releasing radioactive particles which include plutonium with a half-life of 24,000 years. Dredging will disturb the sediments which will then reach the land through sea-spray and wind. This will damage the safety and well-being of the estuary, it's inhabitants and coastal populations of Avonmouth, Bristol, Newport, Cardiff, Barry and beyond.

2. EDF is building Hinkley Point C's massive seawater cooling system that will damage and kill millions of fish every year. EDF have asked permission to omit the protection of an Acoustic Fish Deterrent system that is required by their current Licence. EDF are trying to claim that this system will be ineffective.

3. The new nuclear power station will suck in 29,000 gallons of seawater and marine life every second, heat it up by 10 degrees and send it back into the estuary, wasting more energy into the

environment than all the electrical power Hinkley C will generate. That heat and pressure changes will kill the ecology of the estuary which is already warming up due to climate change.



For more information see <https://www.save-the-severn.com/>

Please help us fund this action .

- To donate online <https://www.crowdjustice.com/case/save-the-severn-estuary/>
- If you wish to contribute to the Save Severn Estuary campaign by BACS, the details are:

Sort Code: 20 61 08

Account Name: Red Kite Credit Union

Account number: 80187291

IMPORTANT: Please quote reference "M3022"

- Alternatively, if you prefer to send a cheque, please send a cheque made payable to 'Red Kite Credit Union and write the reference "M3022" on the back of the cheque.

Postal address:

RKCU, The Hive,
Temple Chambers,
South Crescent,
Llandrindod Wells, LD1 5DH

The Decline of Eels by Julia Manning, local artist and printmaker.

A shocking depiction of the tragic effect of HPC Cooling Tunnels on the epic migration of eelers from the Sargasso Sea to the Somerset marsh lands.



Stop Hinkley members were lucky to find local artist Julia Manning at East Quay Watchet Art Gallery in the Summer of 2021. Her contribution to Somerset Wildlife Trust's exhibition 'Somerset's Brilliant Coast' stopped us in our tracks as a perfect illustration of all we are concerned about with the water intake of the nuclear power stations at Hinkley.

Julia exhibited 12 lino cut prints that described the amazing lifecycle of the precious Somerset Eels who travel to the Sargasso Sea near Bermuda to spawn. The eggs, larvae, leptocephali and glass eels then make their way back to Somerset, evolving on route.

The picture above clearly shows the fate of the eels, like other migrating fish that are sucked into the nuclear power station cooling systems, abruptly ending that epic journey of the collective life attempting to return home to Somerset.

Read more:

http://juliamanning.co.uk/?page_id=804

Update on EPR Design Faults

This is the design planned for HPC and may be a problem for all EPR's in Europe!

Bruno Chareyron explains the design faults that stopped the Taishan EPR nuclear reactor in China.

Bruno is a Nuclear Physics Engineer and director of the CRIIRAD laboratory where SH sent mud samples to be tested.

YouTube video, with English subtitles:

<https://youtu.be/T1bn5ZKQuM0>

Stop Hinkley calls on Environment Minister to Champion Biodiversity in the Severn Estuary and refuse EDF's Appeal which could wipe out 11 billion fish.

16 November, Stop Hinkley Press Release

Marine and conservation groups based around the Bristol Channel, along with the Environment Agency are still awaiting a decision from the Secretary of State for Environment, Food and Rural Affairs, George Eustice, on the public inquiry which considered EDF's application to renege on its commitment to install Acoustic Fish Deterrents on the massive cooling water intakes at Hinkley Point C nuclear power station.

The inquiry was held into this issue by the Planning Inspectorate (PINS) from 8 to 24 June 2021.

The Stop Hinkley campaign wrote to George Eustice on 7th October 2021 asking him to refuse EDF's Appeal so that the UK could be seen as a leader in tackling the global biodiversity crisis. But, as of 15th November 2021, it has received no reply.

Stop Hinkley spokesperson Katherine Attwater said: "The new post-Brexit Environment Act requires the Secretary of State to set a long-term legally binding target on biodiversity by late next year. On paper, George Eustice is committed to halting the decline in nature in England, and beginning the restoration of our marine environment, but on current evidence he is failing to do so. He needs to set an example in tackling the global biodiversity crisis by refusing EDF's application to remove the Acoustic Fish Deterrents, against Environment Agency advice, threatening to wipe out 11 billion fish and decimate stocks in Severn Estuary for 60 years."

As this Newsletter goes out there is still no answer from George Eustice.

2021 End of the year report on UK Nuclear

<https://www.risingtide.org.uk/node/581> .

13 reactors operating, producing about 16% of UK's electricity, after the closure of 4 were announced in 2021. Half of UK's existing nuclear reactors are planned to close down by 2025 and all but one by 2030. Hinkley point B will finish generating electricity this year!

One new power station, Hinkley Point C, started building Oct'16 and is now planned to open in 2026. Another planned at Sizewell C, with a start date given as "before 2024" and the period of construction given as 9-12 years. The UK government announced Nov'21 that they were investing £210m in Rolls Royce to develop small modular reactors, which according to the government could be in use in the early 2030s.

With the ongoing problems and the history of EDF's predictions for the EPR, 2026 for HPC planned opening is highly optimistic!

Minister and Chief Nuclear Regulator respond to NFLA concerns over Hinkley safety issues, but no shutdown promised

17 January, NFLA press release

In December, the Chair of the NFLA Steering Committee, Councillor David Blackburn, wrote to Minister Greg Hands and Chief Executive, ONR Mark Foy outlining his concerns that a radioactive gas leak at the Taishan 1 reactor in China may be the result of a potentially fatal design flaw which may be common to the identical EPRs (short for European Pressurised or Evolutionary Power Reactors) reactors planned for Hinkley Point C in Somerset and at Sizewell C in Suffolk.

In June 2021, nuclear operator, Framatome, a subsidiary of French-state owned power utility, EDF, reported a leak of radioactive gas at the Taishan 1 plant. In November 2021, the French Commission for Independent Research and Information on Radioactivity (Criirad) reported that a design flaw causes early wear in the reactor and that it is common to all EPRs, raising 'serious questions in terms of nuclear safety and radiation protection, both for plant workers and for residents.' The reactor has been shut down to enable an investigation to take place.

In his letters to the Minister and the Head of the ONR, Councillor Blackburn called for an indefinite halt to construction work at Hinkley until the investigation was completed and an assessment made as to whether the EPRs are fatally flawed and should be abandoned.

The Nuclear Free Local Authorities network (NFLA) is disappointed, but not unsurprised, to hear from both the Minister and the Head of the Office of Nuclear Regulation that whilst investigations continue into the cause of the accident at the Taishan-1 reactor in China, there will be no halt to construction work at the new Hinkley Point C nuclear reactor.

More: <https://www.nuclearpolicy.info/news/minister-and-chief-nuclear-regulator-respond-to-nfla-concerns-over-hinkley-safety-issues-but-no-shutdown-promised/>

Email contact

If you would like to receive the newsletter more quickly, in addition to other information, please let us have your email address by contacting val@stophinkley.org. We can still send the newsletter to members by 'snail mail' as well if you prefer.

If you are already receiving the newsletter by email and don't need the postal version any more, please let Val know.

Hinkley Point C = 11 Billion Dead Fish

In June last year Stop Hinkley joined environmental groups in Bristol on the first day of the public enquiry into why EDF is refusing to use an Acoustic Fish Deterrent (AFD).

Without the AFD EDF will be Committing Marine Life Genocide in The Severn Estuary. Three Olympic sized swimming pools of Severn Estuary Water (approx. 8 million litres) per minute will be sucked into the cooling system of Hinkley Point C killing the marine life for its 60 years of operation.

The Environment Agency have insisted that to protect marine life, an Acoustic Fish Deterrent (AFD) is required with sonic deterrent speakers on the water intake heads of the Hinkley Point C cooling water tunnels. But EDF is saying it won't use the AFD - they don't care about the billions of sea lives that will die during the operating of their reactors.



Stop Hinkley spokesperson, Allan Jeffery, said: "At a time when the world is panicking about the loss of biodiversity and the Prime Minister has pledged to protect 30% of UK land to biodiversity, it beggars belief that EDF is trying to get round planning conditions imposed by the Environment Agency. It is bad enough that EDF wants to saddle the UK with an out-dated, expensive, dangerous, non-renewable high carbon energy source, but now we learn that it is also going to be a wildlife killing machine."

Stop Hinkley's Briefing on EDF's Appeal against the Environment Agency's Deemed Refusal to allow a permit variation relating to the installation of an Acoustic Fish Deterrent at Hinkley Point C is available here:

https://www.no2nuclearpower.org.uk/wp/wp-content/uploads/2021/01/AFD_Briefingv2.pdf



When Climate Change Meets Nuclear

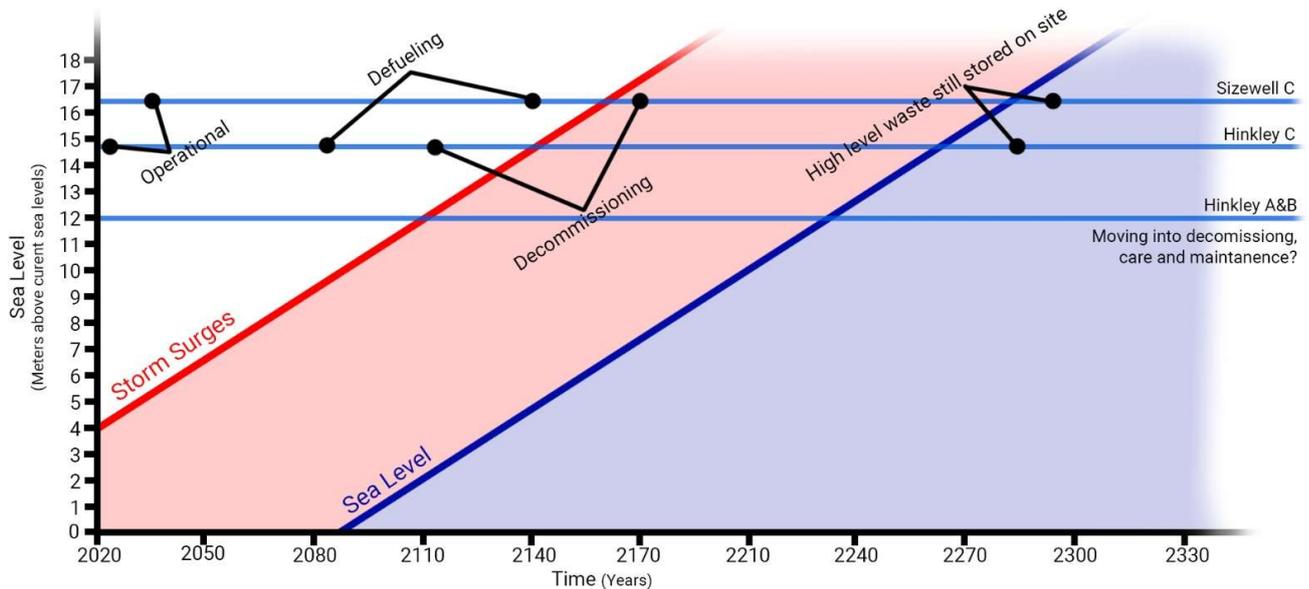
The diagonal blue represents sea level rise based on average forecasted trends over next 300 years.

The diagonal red line shows storm surges and wave action as an average of 10m over 400 years.

(1607-7.5m Severn Estuary, 1899-13.5m Australia, 2005-8.5m New Orleans).

The horizontal lines show the height of sea defences of individual Nuclear Power Stations and their significant lifetime events.

Scientists are predicting that extreme weather events that used to happen every 100 years will start to happen every 10 years.



Stop Hinkley member Katy Attwater is engaged in ongoing work with ONR on climate change and it's threat to Nuclear commercial and military sites around the UK.

Our view at Stop Hinkley is that the Government, the ONR and the Nuclear Industry is not taking seriously the threat of Climate Change to their policies and current and future activities.

These include; building new nuclear power stations on eroding coastal shorelines, speed of

de-commissioning closed sites and plans for long term radioactive waste storage.

The ONR have conceded the necessity to hold a Climate Change workshop with NGOs this Spring, however, our view is that they are not demonstrating an understanding of the big picture by supporting and licensing future nuclear operations such as HPC, Sizewell C, Bradwell C and SMRs.

Citizen Science finds spread of man-made radioactivity in Bristol Channel is far more extensive than previously reported.

Stop Hinkley Press Release 8 December

An independent Citizen Science Radioactivity Survey of the Somerset and South Wales shoreline sediments shows that the spread of man-made radioactivity from reactor discharges to the Bristol Channel is far more extensive and widespread throughout the region's coasts than previously reported.

The survey was undertaken by members of Groups from both sides of the Bristol Channel/Severn estuary because EdF, have repeatedly refused to carry out pre-dumping surveys of the Cardiff Grounds and Portishead sea dump sites where they have disposed of the HPC dredge waste. The survey was carried out in the summer of 2021 prior to the proposed dump at Portishead, but three years after the dump at Cardiff Grounds.

The Groups recognised that the lack of such "baseline" research meant that no one had any information on the

pre-dump status of radioactivity, or of the post dump impacts of the disposal of such vast quantities of radioactivity, on the South Wales and North Somerset coastal environments or the people living on the adjacent coasts and coastal zones.

Speaking on behalf of groups Marine Radioactivity Researcher Tim Deere-Jones said: "The results of this survey clearly demonstrate that there are serious grounds for concern that the Bristol Channel/Severn estuary coasts and communities had already been subjected to radiological contamination from Hinkley since the 1960s and that EdFs current programme of dumping radioactive wastes at Cardiff Grounds and Portishead should not have been permitted by the Welsh and English Agencies in the absence of the baseline data." More: <http://stophinkley.org/uncategorized/citizen-science-finds-spread-of-man-made-radioactivity-in-bristol-channel-is-far-more-extensive-than-previously-reported/>

Climate Change Threatens Nuclear Power

Letter printed in Western Daily Press and the Western Morning News on 17 September

Nuclear Power Stations are closing down and very few are being built. Nuclear generation around the world is slowly dying as part of the global energy transition to cheaper, cleaner and quicker to build renewable energy technologies. Even so, a desperate nuclear building industry is spending millions in a public relations campaign, to convince politicians and the public that nuclear new build still has an important part to play in the battle to replace fossil fuels to fight climate change. This is nonsense, as rather than being a saviour in taking on climate change, nuclear is in the front line to become a significant victim to the rapidly evolving climate changes.

The reason why nuclear is so vulnerable to rapid climate change is, water!

Nuclear generation of electricity needs large amounts of water, for reactor and radioactive waste cooling purposes and for the condensing in steam generation to be able to produce electricity. Too much, or too little water, or water to warm, is disastrous for nuclear generation! For these reasons therefore, nuclear power plant are either built on the coast or inland on large rivers.

As knowledge of climate warming and polar ice melts evolves it is becoming clear that sea level rise is accelerating significantly faster than previously thought. This means more frequent and destructive storm surges, severe rainfall, flooding inundation and coastal erosion becoming the norm.

Most coastal power stations and accompanying radioactive waste stores are built just a few metres above sea level and are therefore vulnerable to an accelerating sea level rise, more frequent storm surges, flooding and increasing coastal erosion.

Hot radioactive waste at Hinkley Point C will have to be kept safe and secure for at least 160 years before it could even be moved. As the Somerset coastline is rapidly eroding and flooding, building higher and higher sea walls, will mean Hinkley Point C will become "*an isolated, island fortress of radioactive waste*"

Inland nuclear power stations are also vulnerable, not only to the extreme rainfall causing severe river flooding, but also the opposite problem of increasing long hot droughts depriving them of sufficient water for steam generation. French river based nuclear power stations are also often turned off in hot Summers, before the hot water emissions from generation kill off the natural river wildlife. Hot global temperatures bring increasing forest fires such as those in Ukraine recently encroaching on the Chernobyl nuclear waste site.

We and our children will have enough problems of mitigating our lives against rapidly changing climate change, we don't need more new nuclear plants and have to deal with their accumulating long term toxic radioactive waste as an extra burden, cost and hindrance to our future.

Allan Jeffery
(Assistant co-ordinator Stop Hinkley)

Link to Paul Dorfman's article in the Ecologist that stimulated Allan's letter to the press.
<https://theecologist.org/2021/jul/14/when-climate-breakdown-goes-nuclear>

Events

Stop Hinkley meetings

Our monthly campaign meetings are being held via Zoom for the time being. Please get in touch if you would like to be involved.

Meetings are usually held on the second Monday of the month. All members and non-members are very welcome to attend, though only members have voting rights.

AGM

The AGM will be on 21 March at 7pm, via Zoom. Anyone is welcome to attend, though only members have voting rights. If you wish to take part, please get in touch so that we can send you the Zoom link.

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