

**From:** [REDACTED]  
**To:** [Manston Airport](#)  
**Subject:** DCO Manston Airport  
**Date:** 09 July 2021 20:50:03

Dear Secretary of State,

Here is my submission for the re-determination of the DCO and against the creation of an airport at Manston, principally concerning the environmental and biodiversity impacts which have not been properly considered throughout the planning process. This is a travesty given that Manston Airport would greatly affect the protected coastal sites around Thanet, and in particular bird migratory areas that are internationally important. There is a major issue with water contamination under the airport which has been grossly under-analysed and I believe a complete disaster for the health of people living in Thanet.

Apparently Manston airport will be a zero-carbon airport, despite the fact that no such thing exists. No current aviation technology is carbon neutral and if you dig a bit deeper you discover that this baseless spin depends on the biggest greenwash of all: offsetting by planting trees. No wonder RSP have been so keen to plant trees in Thanet!

The original consultation was "filled with misleading and incorrect claims about the environmental and health impacts re-opening Manston Airport will have on the local communities, countryside and biodiversity."  
He said: "At best, RSP, is incompetent and scientifically illiterate, at worst, it is willfully trying to mask the true extent of damage of their environmentally-destructive plans."

<https://www.kentonline.co.uk/thanet/news/mep-slams-manston-airport-firms-160203>

In this planning inspectorate report from last year both the [RSPB Kent](#) and [Kent Wildlife Trust](#) expressed concern about the quality of ecological surveys undertaken to determine the harm to birds and bird breeding grounds in close proximity to Manston Airport. Why then was the DCO passed?  
"The RSPB's RR [RR-1729] also raised concerns with the conclusions of no adverse effects on integrity of the Thanet Coast and Sandwich Bay SPA and Ramsar sites and their species. The concerns were focussed on the Applicant's methodological approach to the ecological surveys submitted with the application. RSPB made specific reference to wintering bird surveys (including the lack of surveys within the airport boundary); breeding bird surveys; 13km bird strike surveys; the need for nocturnal surveys in functionally linked habitat adjacent to the airport; and barn owl surveys. RSPB also raised concerns in respect of damage to bird features at the Thanet Coast to Hacklinge Marshes SSSI and also mirrored NE's statement that a conclusion of no adverse effects on integrity of the Thanet Coast and Sandwich Bay SPA and Ramsar site could not be reached based on the current evidence.

Kent Wildlife Trust's (KWT) RR [RR-0978] raised concerns regarding the sufficiency of survey information provided; the impacts of the Proposed Development on designated sites; the impact of bird dispersal methods but otherwise deferred to the RSPBs comments."

[https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/TR020002/TR020002-004289-Report%20on%20the%20Implications%20for%20European%20Sites%20\(1\).pdf?fbclid=IwAR3dt\\_PdQhVNsGDeL7aaxEjaeHy6qGhevduO1mUvY0ehHQUd0L\\_ai1nuk](https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/TR020002/TR020002-004289-Report%20on%20the%20Implications%20for%20European%20Sites%20(1).pdf?fbclid=IwAR3dt_PdQhVNsGDeL7aaxEjaeHy6qGhevduO1mUvY0ehHQUd0L_ai1nuk)

Exchange Tagus estuary for Pegwell and Sandwich Bay - and you have the exact same issue detailed below

Why is Manston Airport going ahead unchallenged by wildlife and especially birdlife charities?

"The Tagus estuary is one of Europe's most important wetlands and one of the most important passage/wintering sites for waders and wildfowl in the East Atlantic flyway. It supports up to 300,000 birds on their journey between Northern Europe and Africa and around 200,000 birds overwinter on the estuary.

Migratory species and the corridors and flyways they use connect the planet. But all around the world these critical stepping stones of habitat and sites, the lifeblood of migratory species, are being degraded and destroyed. For each site lost there is a wider impact on migratory routes and a knock-on effects for migratory species. In order to safeguard connectivity the potential impact on migratory species of proposed developments must properly take into account the impacts on the wider flyway. Among the worst current such threats is the proposed international airport and associated infrastructure in the Tagus Estuary near Lisbon, Portugal, which will encroach on a Ramsar site and Special Protection Area."

[https://community.rspb.org.uk/ourwork/b/martinharper/posts/court-challenge-to-illegal-lisbon-airport-on-internationally-important-wetland?fbclid=IwAR3dt\\_PdQhVNsGDeL7aaxEjaeHy6qGhevduO1mUvY0ehHQUd0L\\_ai1nuk](https://community.rspb.org.uk/ourwork/b/martinharper/posts/court-challenge-to-illegal-lisbon-airport-on-internationally-important-wetland?fbclid=IwAR3dt_PdQhVNsGDeL7aaxEjaeHy6qGhevduO1mUvY0ehHQUd0L_ai1nuk)

[RSP Manston](#) reveal that the [Kent Wildlife Trust](#) has helped to greenwash the actions of RSP. Kent Wildlife Trust claim they do not have any influence on the planning inspectorate and claim they have limited resources to investigate any impacts.

RSP clearly do not have any understanding of bird migration and breeding patterns, prior to reopening a noisy polluting new cargo airport on top of an internationally important protected wetland site.

The time to identify risk is BEFORE the airport is agreed, which clearly has not happened.

Mitigation of risk appears to mean they will kill birds.

For instance:

Airports' global bird slaughter - 100,000s gassed, shot, poisoned \*\*\*\*\*

"Airports around the world are waging a war on birds. It's meant to prevent aircraft bird strikes. But in fact, fatal (for people) collisions are rare - and even killing thousands of birds does little to reduce the number of strikes."

Says Rose Bridger. The death toll is horrendous. Could it be worse now? Given the increase in air traffic and encroachment on ever more bird habitats worldwide?

"But airports' culling practices have exacted a heavy toll on many species of birds. In May 2014 records showed that, over a five year period, JFK Airport wildlife control officers had shot 26,000 birds.

More than 1,600 of these were from 18 protected species that airports did not have permission to kill including red-winged blackbirds, snowy egrets and American kestrels. In spite of the slaughter, the number of collisions has not declined.

To the south, in New Jersey, the picture is similar. 6,000 animals, mainly birds, have been killed in the name of air safety. Here too, the number of collisions with aircraft has not declined.

Over on the west coast, five airports in the San Francisco Bay area shot 3,000 birds in a two-year period up to May 2013, including 57 red-tailed hawks. Medium-sized birds such as gulls, ducks and hawks, and even small birds including starlings and blackbirds are also targeted, as dense flocks can be down a plane."

<https://theecologist.org/2014/aug/18/airports-global-bird-slaughter-100000s-gassed-shot-poisoned>

The RSPB were all over the proposed airport on the Thames Estuary a few years ago. Here is what they wrote:

"We are vehemently opposed to the construction of an airport in the Thames Estuary....

This world-class coastal wetland has been threatened by a series of ill thought-out airport proposals over the past several decades. By campaigning alongside local communities and many others we have ensured none of them have come close to getting off the ground....

The construction of a Thames Estuary airport would result in an unprecedented level of damage and destruction to a highly protected and internationally recognised coastal wetland. In addition, we have serious concerns about the wider impacts of aviation expansion on people and wildlife as a result of the increased carbon emissions and their contribution to climate change....

Why is it worth fighting for?

The Thames Estuary is a large coastal wetland and a vital migration hub for hundreds of thousands of wildfowl and wading birds. Some spend the winter in the Thames, feeding on its mud flats and salt-marshes, others are in transit between their Arctic breeding grounds and winter homes further south....

Were it to go ahead it would almost certainly be the largest single deliberate act of protected wildlife habitat destruction ever perpetrated in the UK and it would raise serious questions about the government's commitment to being the greenest government ever....

At the RSPB, we are proud of the role we have played in protecting, nurturing and sharing the wild landscapes of the Thames in Kent (AHM), Essex and Greater London."

Now, why has more not been done to fight Manston Airport?

The RSPB were not happy with the quality of ecological surveys last year, yet the DCO has been passed - and has anyone heard a peep out of them?

Here's the data: (from wikipedia)

Sandwich and Pegwell Bay is a 615-hectare (1,520-acre) nature reserve

Sandwich Bay to Hacklinge Marshes is a 1,790.1-hectare (4,423-acre) stretch between Sandwich and Deal

Between them they include:

- \* two Geological Conservation Review sites
- \* most of it is a Nature Conservation Review site, Grade I.
- \* part of the Thanet Coast Ramsar site
- \* a Special Area of Conservation
- \* a Special Protection Area
- \* a National Nature Reserve

\* a Kent Wildlife Trust nature reserve and a Local Nature Reserve  
South Thames Estuary and Marshes is a 5,289-hectare (13,070-acre) site

It is a

\* biological Site of Special Scientific Interest

\* a Nature Conservation Review site, Grade I,

\* a Royal Society for the Protection of Birds nature reserve.

\* the Thames Estuary and Marshes Ramsar internationally important wetland site

\* a Special Protection Area under the European Union Directive on the Conservation of Wild Birds

There's not much in it is there? You might think that if the Thames Estuary wetlands are worth fighting for, then so is Pegwell Bay and the marshes and coast that stretch beyond.

Why is more not being done to draw attention to the peril which faces our unique wetland and marshes?

<https://www.rspb.org.uk/our-work/casework/cases/thames-estuary/>

We know run off from Manston Airport comes out at Pegwell Bay. What harm will it do to the delicate estuary environment:

"Runoff waters from airport areas constitute a serious environmental problem. It is essential to monitor levels of pollutants emitted into the environment and measure their toxicity on a continuous basis."

[https://www.researchgate.net/publication/241682540\\_Pollutants\\_in\\_Airport\\_Runoff\\_Waters](https://www.researchgate.net/publication/241682540_Pollutants_in_Airport_Runoff_Waters)

A study that looks at the effects of airplane noise on bird communities. Essentially not much is known but it looks like birds suffer hearing loss near airports.

"Abstract: Noise generated by low-altitude aircraft movements reaches levels higher than many other anthropogenic noise sources. How birds respond to these acute noise levels is, to date, poorly understood. This thesis provides some of the first data on how noise generated by aircraft affects avian communities and communication.

Firstly, point counts conducted around Manchester airport show there is no effect of increasing noise levels on beta diversity. In addition, results show the density and abundance of the two most abundant species and the number of detections for the five most common species was also unaffected.

Secondly, comparisons of the songs of the abundant chiffchaff reveal that airport birds use lower frequency songs than control birds. This finding was replicated in two countries. Additionally, the songs of airport birds in the UK are longer and slower than control birds. These findings may be explained by birds that are found close to airports are suffering from Noise Induced Hearing Loss (NIHL). This was supported when comparing the responses of airport and control chiffchaffs to territorial songs; airport chiffchaffs were more aggressive, attacking the speaker 5 times more than control birds. An explanation for this is that as an artefact of NIHL, airport birds perceive songs differently to those in the control site.

Finally, physiological stress induced by aircraft noise was investigated. There were no differences in corticosterone levels, a proxy for measuring stress levels, between 11-day old blue tit chicks exposed to noise treatments and control chicks. These findings suggest that pre-fledging blue tit chicks do not perceive anthropogenic noise as an environmental stressor.

Whilst the work in this thesis does not detect an effect of aircraft noise on the species community or corticosterone levels, it does provide evidence consistent with the loss of hearing in birds as a consequence of anthropogenic noise exposure."

[https://e-space.mmu.ac.uk/618920/1/AWOLFENDEN\\_PHD\\_THESIS\\_FINAL\\_6-6-.pdf?fbclid=IwAR2f-GtBZYKngRnec1Oetm9HHgvov1wvaHNytDJegmwnPI-DgJzYvfBAtOY](https://e-space.mmu.ac.uk/618920/1/AWOLFENDEN_PHD_THESIS_FINAL_6-6-.pdf?fbclid=IwAR2f-GtBZYKngRnec1Oetm9HHgvov1wvaHNytDJegmwnPI-DgJzYvfBAtOY)

The effect of pollution on insects is so easily overlooked - but so much of life depends on them.

"Airborne pollutants affect all kinds of life, even insects."

This summer has been a brilliant year for swifts in Thanet: birds which depend on their ability to gobble up insects on the wing.

How will birds like these be affected if insect populations plummet even further thanks to pollution from airplanes?

Just imagine how much more air pollution there will be in Thanet when there are cargo planes taking off every 10 minutes from Manston Airport, and huge amounts of delivery lorries clogging up our already over-stretched roads.

"Air pollution is likely to be one part of a complex problem. Bees are sensitive to lots of toxins, but how these interact in the wild is fiendishly difficult to disentangle. We know cocktails of pesticides can cause real damage too. But what happens when bees are exposed to these at the same time as air pollution? We don't yet know, but answers are urgently needed."

<https://theconversation.com/air-pollution-could-be-making-honey-bees-sick-new-study-144155>

Breeding pairs of brown hares have often been spotted on the Northern Grasslands at Manston. This entire Greenfield area is destined to be entirely covered with industrial warehouses for Manston Airport. It's funny then, that the wildlife surveys for RSP Manston make no mention of hares.

The brown hare was introduced by the Romans and was once common and widespread across the UK, inhabiting a special place in our folklore. In recent times Kent was considered a stronghold for the species, which has declined by 80% in the past 100 years and continues to do so, due to increasing pressure on its habitat.

In this statement for the National Planning Inspectorate the Kent Wildlife Trust express concern about the lack of surveys for all S41 species (including the Brown Hare) which are regarded as priority species for the Biodiversity 2020 action plan.

They say "We are concerned about the potential impact upon the Kent priority species brown hare. We would have expected to see further survey and detailed proposals to mitigate for this species."

This is just another example of the total disregard for our vanishing green spaces and wildlife habitats. The ecology surveys for Manston are an absolute joke.

<https://infrastructure.planninginspectorate.gov.uk/projects/south-east/manston-airport/?ipsection=relreps&ipsearch=pegwell%20and%20district&relrep=29383&fbclid=IwAR03p05KPFc8ah6VTTmuoeg1GGhCSYcvbIlu6nuiKYRa4dYLqU0eFX6EMR4>

This blog is about the Canary Islands airport Los Rodeos, where bird watchers monitored the sudden mass arrival of red-footed falcon, attracted by the abundance of insects in the grassland. Over half died as a result of collisions.

<https://avescanarias.blogspot.com/2015/10/cernicalo-patirrojo-red-footed-falcon.html>

People are waking up to the impact of human activity on animal life. Of particular concern are large infrastructure such as airports.

"Human activity is fundamentally altering the distances the world's animals need to move to live, hunt and forage, according to a study that examined the impact on more than 160 species across six continents.

All activities changed the behaviour of animals, but the study found destructive activities such as urbanisation and logging affected the movement of animals less than sporadic endeavours such as using aircraft, hunting and recreation."

Mammals are being most greatly affected.

"For mammals, roads, agriculture and aircraft had the greatest affect on distances travelled"

<https://www.theguardian.com/environment/2021/feb/02/human-activity-forces-animals-to-move-further-to-survive-study-finds?fbclid=IwAR2f-GtBZYKngRnec1Oetm9HHgvov1wvaHNytDJegmwnPI-DgJzYvfBAtOY>

"The climate impact of expansion plans at regional airports in England has been dramatically underestimated and would threaten the UK's legally binding commitments, according to a report published ahead of a key summit later this year."

[https://www.theguardian.com/environment/2021/may/21/expansion-of-english-airports-could-threaten-climate-commitments-report?fbclid=IwAR2pKb3QVT18xwUaMV34JX6pojJEL8fuO\\_x7mTohYkoYYq9KKZkT82MpeN8](https://www.theguardian.com/environment/2021/may/21/expansion-of-english-airports-could-threaten-climate-commitments-report?fbclid=IwAR2pKb3QVT18xwUaMV34JX6pojJEL8fuO_x7mTohYkoYYq9KKZkT82MpeN8)

Toxic Water:

Kent County Council have finally agreed to test for PFOA in the outfall from Manston at Pegwell Bay.

Has potential contamination of the aquifer at Manston been properly explored and considered?

If not why not?

"The question of land contamination has also been raised with the likely presence of firefighting foam residual chemical PFOA (perfluorooctanoic acid) in the land and water.

PFOA can escape sites by air, by ground water, by outfall to sea or by water supply. Manston has all of these escape routes.

Southern Water abstracts from the Manston aquifer but the site has never been tested for PFOA. The assertion is that PFOA classification would render construction plans 'obsolete' for both RSP and SHP as well as raise significant questions about the health of Thanet residents in relation to water safety.

Thanet council has said it is reviewing its contaminated land strategy but appears not to be taking account of the PFOA classification.

Industry fire-safety experts from the oil and gas and aviation sectors and firefighter trade unions are urging governments to enact a global ban on PFOA,

The issue was addressed at the 9th Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants.

The convention's scientific experts recommended the ban, including in firefighting foam, due to its toxicity, persistence, bioaccumulation in the food chain, and ability

to travel long distances.

PFOAs have been detected at trace levels in human blood, and high concentrations have been linked to organ damage in rats and mice."

<https://thisisleofthanetnews.com/2019/06/27/manston-dco-questions-raised-over-museums-noise-compensation-funders-and-contamination/>

Since 1989 Manston has been the location of the MOD fire training school using toxic foam chemicals to put out fires.

In that time how many known toxins in the form of PFOAs and other PFASs have entered the drinking water table? No one has yet run the appropriate tests. RSP make promises of testing and remediation which have yet to materialise. KCC have finally agreed to test for toxins at Pegwell Bay. Meanwhile Thanet keeps drinking a potentially lethal cocktail.

"The introduction of per- and polyfluorinated compounds (PFASs) in the mid-twentieth century unleashed a wave of persistent and toxic chemicals into the environment, contaminating everything from food and drinking water to the dust around us. Also known as "forever chemicals," these substances continue to persist in the environment and in our bodies"

"PFASs are incredibly prevalent and persistent in the environment, meaning that they stay in the soil and water for long periods of time. PFASs are immune to degradation, regardless of environmental conditions. Natural breakdown over time is assumed to be virtually nonexistent"

"PFOS, PFOA and other PFASs have been shown to be present in groundwater for anywhere from 5 to 15 years following the end of firefighting activities at a military base in Michigan."

"PFASs can concentrate in the bodies of humans and animals over time through a process known as bioaccumulation."

"There is also evidence that some PFASs can biomagnify, or increase in concentration, up the food chain."

"Some evidence indicates that even very low levels of PFAS exposure may not be completely safe for human health. Ongoing exposure to low levels of PFOA found in drinking water can substantially increase total exposure in humans and can lead to concentrations in the body high enough to potentially increase health risks.

Infants may be especially vulnerable to PFOA."

"PFASs pose serious risks to human health. There are a number of well-documented health effects associated with exposure to PFOA and other PFASs. This includes high cholesterol, thyroid disease and weight gain. PFOA also has been shown to be associated with reproductive effects, such as decreased fertility and pregnancy-induced hypertension. Increased exposure to PFOA was found to correlate with decreases in birth weight. PFOA exposure also has been shown to cause adverse impacts on the liver and on the immune system."

Our drinking water still has not been tested, despite recommendations to do so dating back over a decade.

RSP, TDC, KCC, Southern Water, Environment Agency and many other public bodies continue to collude in this delay.

Meanwhile we have some of the highest rates of ill health in the country.

<https://www.foodandwaterwatch.org/insight/these-chemicals-are-forever-water-contamination-pfoa-pfos-and-other-pfas>

Southern Water, potentially in connection to RSP's plans to develop Manston airport, are working on sewage pipes that connect to outfall pipes under land between Manston and Pegwell Bay. These pipes could be discharging potentially toxic run off into our delicate and protected coastal marine nature reserve.

The outfall pipe from Manston airport was laid many years ago during the war years and its exact route and condition is uncertain, but we've heard tales that it leaks like a sieve.

It runs under many private properties who had no idea it was under their land. Southern Water/RSP are currently trying to acquire rights of entry so they can properly assess and maintain this crucial bit of infrastructure.

Apparently the discharge runoff water from the runway has no current consent and no work can commence until that consent has been agreed.

What exactly has this pipe been discharging into Pegwell Bay over the past few decades?

Ostensibly it was created to remove rain from the runway but possible toxins include PFOAs, PFASs, PCBs, oil, aircraft deicing agents and much more.

During its journey from the airfield, how much toxic run off has escaped from this ancient pipe into the environment, including entering the water table and our drinking water?

Why has no one been monitoring this situation properly, including the Environment Agency, Kent Wildlife Trust, Southern Water and Thanet District Council?

What exactly is the plan, aside from "attenuation ponds" to ensure this process is safe?

Finally, is it EVER a great idea to discharge run off from an airport into an internationally important nature reserve with triple protections in the form of SSSI, SPA and Ramsar site designations?

Thanet District Council currently has no entries on the Contaminated Land Register.

Below is TDC's Contaminated Land Strategy:

How does this relate to possible toxic contamination at Manston?

None of this process seems to have been followed, prior to the DCO being passed for the reopening of Manston Airport.

This is despite the fact that Fire Fighting has taken place for several decades over one of Thanet's main drinking water aquifers at the government's Defence Fire Training and Development Centre. The foam used in this Fire Fighting is almost certainly toxic, containing PFOAs and PFASs

"Inspection Process

The Council has a duty to inspect the land within its boundary with the aim of assessing whether the land is suitable for its current or proposed use. This can be broken down into three main elements:

(a) Assessing whether land is suitable for its current use.

The Council is required to identify any land where contamination is causing unacceptable risk to human health or the environment. The Council reviews each site with the aim of identifying significant pollutant linkages. This involves the identification of one or more contaminants (the Source), one or more vulnerable receptors to this contaminant (e.g. children playing, water protection zone etc.) and a pathway that the contaminant may utilise to reach the receptor. This is the Source – Pathway – Receptor principle of risk assessment. Where contamination of this nature is identified, it is the role of the Council to identify the appropriate person(s) responsible for the remediation of the land.

(b) Ensure that land is made suitable for any new use, as planning permission is given for that use.

This requires the site to be risk assessed, taking into account the potential for significant harm from contamination, based on proposed future use and site users. The Council's planning department will consult with the Environmental Protection Team when assessing planning applications that involve sites where actual or potential contamination exists. Applicants will be expected to demonstrate the site's suitability for the proposed use, or how it will be made suitable as part of the development process.

(c) Limit requirements for remediation to the work necessary to bring the level of risk of significant harm to human health or the environment to within acceptable levels, taking into account the current or proposed use. Any change in this current or proposed use may require further remediation.

Therefore, it is within the appropriate person(s) or developer's best interest to identify all current and proposed uses to avoid unnecessary cost and wasting of resources.

It should be noted that the contaminated land regime and legislation is not applicable where contamination has resulted as a result of a specific breach of an environmental license or permit. In this instance the polluter is required, under the relevant regulatory regime, to remove the contamination completely."

[https://www.thanet.gov.uk/wp-content/uploads/2019/02/Contaminated-Land-Strategy-2018-2023.pdf?fbclid=IwAR2cY\\_PYqt54zqqGODaMsW7cV1i5Ea3aHckEJKAmrliHuq6M6\\_PkAojzow](https://www.thanet.gov.uk/wp-content/uploads/2019/02/Contaminated-Land-Strategy-2018-2023.pdf?fbclid=IwAR2cY_PYqt54zqqGODaMsW7cV1i5Ea3aHckEJKAmrliHuq6M6_PkAojzow)

Manston Airport sits on top of Thanet's largest drinking water aquifer. Our ground water is already poor quality and vulnerable to further contamination. Our Local Plan has just been agreed.

"Groundwater Protection

16.12 Thanet's groundwater is of poor quality and is vulnerable to contamination due to Thanet's thin soils and cracks in the chalk rock, which means pollution would soak through quickly to the groundwater. However the groundwater is used to supply water for drinking water, agriculture, horticulture and industry and also feeds the springs that emerge along the coast near the marshes, so it is important that there is no further contamination to the groundwater."

16.13 Thanet's groundwater is extremely vulnerable to contamination as substances (natural substances and man-made chemicals) are able to pass rapidly through the thin soils and the natural fissures (cracks) in the chalk rock to the groundwater below the ground surface.

16.14 Once the chalk and groundwater is contaminated at a site by a substance it can take decades to clean-up. The Council and the Environment Agency have worked hard to prevent contamination by consistently applying Groundwater Protection policies to any proposed land-use changes in Thanet to reduce potential future impact.

16.15 Under the Water Framework Directive (WFD), the 'Kent Isle of Thanet Groundwater Body' has been classified as poor status for the groundwater quality and quantity. The groundwater is impacted by nitrates, pesticides, solvents and hydrocarbons at levels that are of concern. Thanet's groundwater is currently a candidate Water Protection Zone (WPZ). These zones are used in areas identified as being at high risk as a 'last resort' when other mechanisms have failed or are unlikely to prevent failure of WFD objectives. WPZs are a new regulatory tool to address diffuse water pollution. They are designed to help enforce measures to prevent pollution and improve water quality where standards set out in the Water Framework Directive (WFD) are not being met. It is hoped that sufficient measures can be taken, by various organisations and individuals, that will help remediate the problems with Thanet's groundwater and avoid a WPZ designation.

16.16 The poor groundwater quality cannot be attributed to just one source. In Thanet there are considerable risks to the groundwater from both urban and rural activities. These risks are intensified by the compact nature of the district. Hazards to Thanet's groundwater include petrol stations, gas works, drainage from roads, leakage from sewers, pesticide storage, septic tanks, sheep dips, and farm buildings. Uses that can cause pollution to the groundwater include dry cleaners, mechanics, scrap metal, photo processing, and some sustainable drainage systems.

16.17 Some methods of Sustainable Drainage can cause detriment to the groundwater. However, well designed SuDs in suitable locations can improve the volume of groundwater available without affecting the quality. Therefore discharges to the ground must be carefully designed to ensure that they are appropriate and do not cause further degradation. SuDs must be designed so that pollutants are removed prior to discharge, and where possible, properly designed in order to improve the groundwater quantity. Discharges to the ground in sensitive areas should be approved by the Environment Agency.  
[https://consult.thanet.gov.uk/consult/ti/TLP\\_PRE\\_SUB/view?objectId=9436724&fbclid=IwAR1ce-3pKkg\\_Okpw\\_W9sz6g3wGk7F1mGxDr-s8JYe7hW6UpxmHE7rC3OGg](https://consult.thanet.gov.uk/consult/ti/TLP_PRE_SUB/view?objectId=9436724&fbclid=IwAR1ce-3pKkg_Okpw_W9sz6g3wGk7F1mGxDr-s8JYe7hW6UpxmHE7rC3OGg)

The following from The Environment Agency's approach to groundwater protection February 2018 Version 1.2 suggests that inadequate checks have been made on the drinking water below Manston Airport prior to DCO approval:

#### A4 - Responsibility for assessments

The Environment Agency expects developers and operators to assess the area of influence of their activities and to take account of all current and future groundwater uses and dependent ecosystems. Developers and operators are expected to assess and mitigate the potential impact on groundwater, throughout planning, construction, operation, and decommissioning phases of the development or operation.

#### A5 - Supply of adequate information

The Environment Agency expects developers and operators to provide adequate information to statutory bodies, including the Environment Agency, when submitting their proposals. This is so that the potential impact on groundwater resources and quality can be adequately assessed. In particular, where new techniques, operations, products or substances are involved, developers or operators should be prepared to supply specific relevant data to allow the risk to groundwater to be assessed.  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/692989/Environment-Agency-approach-to-groundwater-protection.pdf?fbclid=IwAR3frXLVgaCmtJ48yXUDeAjqGVO4Ob3C64d1Qscfv0TImyDQpYh76qEdaYY](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/692989/Environment-Agency-approach-to-groundwater-protection.pdf?fbclid=IwAR3frXLVgaCmtJ48yXUDeAjqGVO4Ob3C64d1Qscfv0TImyDQpYh76qEdaYY)

Manston Airport, the famous Foamed Runway and its toxic aftermath...

Manston Airport has a long (proud) history of "Foaming the Runway" with firefighting foams that almost certainly contained toxic PFOS, the 'forever chemical' now known to persist in the environment and cause a host of health problems.

According to the Save Manston Airport site "Manston, uniquely in the UK, also had a 'foam carpet' crash landing system, where two tractors would pull tankers laying a metre thick layer of foam over a strip of runway, for aircraft with landing gear problems."

Here are just two cases:

June 1965

"official photos of the foam-runway landing by XM244 on 9 June 1965 at RAF Manston" (see below)

April 1967

"decided to divert to Manston-Kent Airport where an emergency landing was carried out on a foamed runway."

These foams came into popular use during the 1960s and were used for several decades across the world. Due to the extreme danger of the chemicals used in these foams airports across the USA, Australia, New Zealand and elsewhere are now facing massive clean ups. Chronic exposure to PFOS adversely affects the liver, gastrointestinal tract and thyroid, and it is believed to cause cancer. Its usage is now restricted under the Stockholm Convention.

According to wikipedia "A foam path is the now-discouraged aviation safety practice of spreading a layer of fire suppression foam on an airport runway prior to an emergency landing. Originally, it was thought this would prevent fires, but the practice is no longer recommended."

Thanet's main drinking water aquifer runs directly underneath Manston Airport. The following excerpts are from the TDC Local Impact Report for the development of Manston Airport.

"This abstraction, which is a significant groundwater resource, relies substantially on an adit in the Chalk which runs below the existing runway, approximately 50m below the site."

"The Chalk aquifer derives its permeability from secondary permeability (fracture flow) and is therefore highly susceptible to pollution due to rapid transport of dissolved and particulate contaminants through fracture networks. Groundwater from the chalk rock beneath Thanet is used to supply water for drinking water, agriculture, horticulture and industry. It also feeds the springs that emerge along the coast and near the marshes. The groundwater is extremely vulnerable to contamination as substances (natural substances and man-made chemicals) are able to pass rapidly through the thin soils and the natural fissures (cracks) in the chalk rock to the groundwater below the ground surface."

"It is considered that the former land use is likely to have resulted in potentially significant land quality impacts, particularly in the runway area where Fog Investigation and Dispersal Operation (FIDO) was carried out and runway foams were used."

"there is a lack of baseline data to establish the contamination profile at the site. In agreement with the Environment Agency, additional site investigation data and assessment have not been submitted with the DCO application. Several outstanding concerns therefore remain regarding the specific measures that will be implemented to protect groundwater and human health receptors from what may be a complex contamination profile at the site."

According to the report, thus far insufficient investigations have been made by RSP Manston:

"The applicant has agreed with the Environment Agency that no intrusive investigation will be undertaken prior to consent being granted."

And it is intimated that fire-retardant foams may yet be used in the future, despite their unknown effects on the Thanet landscape in the past.

"Chapter 17 of the Environmental Statement covers Major Accidents and Disasters, including plane crashes (referred to as air incidents) which have the potential to release pollutants including fuels and fire-retardant foams on and around the runway. Approval from the EA will be required on specific mitigation for containment of pollutants including any routing of surface run-off via the on-site interceptors."

The report concludes:

"There is a lack of baseline data and the contamination status of the site is poorly defined. Given the potential for complex and recalcitrant contamination at the site due to historic use of fuels, chlorinated solvents, asbestos, radiological materials, runway foams and de-icing agents, and the very high sensitivity of the local groundwater in the Chalk aquifer, due to a public water supply adit underlying the runway, it is considered that there is a high potential for significant adverse effects on groundwater quality, and to a lesser degree human health. Generic proposals have been put forward for mitigation of potential effects, but these are considered insufficient to demonstrate that significant negative impacts can be avoided."

Why has our ground water still not been tested for possible PFOS contamination?

Why did the Environment Agency agree to put further investigations off until after consent has been given?

What are the latest plans to mitigate potential toxic pollution under Manston?

Sources:

<http://www.savemanstonairport.org.uk/.../Manston-Airport...>

<http://www.bywat.co.uk/manston.html>

<https://www.baaa-acro.com/city/manston>

<https://consult.environment-agency.gov.uk/.../perfluoroc...>

<https://infrastructure.planninginspectorate.gov.uk/...>

Groundwater is experiencing a serious deterioration in quality across the UK, due to toxins leaching into aquifers. We are at particular risk in Thanet, due to our easily contaminated chalk landscape.

Our main aquifer is underneath Manston Airport. There have thus far been inadequate tests of historical pollution and no plans have been put in place to mitigate future groundwater pollution.

"Deteriorating Groundwater Quality

Groundwater is a vital source of water for public supply, agriculture and industry in the UK. It accounts for about 27% of the total public water supply nationally, although the extent of groundwater dependence is substantially higher in certain regions, notably south-eastern England. In the past a major attraction of using groundwater was that it usually required little or no treatment, but this is no longer the case. High nitrate concentrations, primarily as a result of increased agricultural production since the 1940s, affect many groundwater supplies. The same is true for pesticides, widely used for weed control in agriculture, on roads and railways, and to control pests in agriculture and industry. Groundwater quality problems have also arisen from accidental spills or leaks from tanks and pipelines of petroleum products, phenols and chlorinated hydrocarbons. Contaminated land and urban pollution have given rise to a range of liquid and gaseous pollutants. The more soluble and mobile of these pollutants can infiltrate to the water table resulting in plumes of slowly moving contaminated groundwater from many industrial sites.

It would appear that the time is ripe, if not overdue, for more consideration of the problem of degrading groundwater quality, with a view to developing remediation and mitigation strategies. The measures necessary will result in costs not only for the water industry, but also for other stakeholders such as those in the industrial and agricultural sectors. These and other stakeholders - the environment regulators, planners and policy makers - must all be involved in the decision-making process."

[http://www.groundwateruk.org/Cost\\_of\\_deteriorating\\_groundwater\\_quality.aspx?fbclid=IwAR2S11OZWhY5\\_oY\\_eJISRb07HRjnHECJGM0zkfFbGsjQfhX-C8igP9w\\_So](http://www.groundwateruk.org/Cost_of_deteriorating_groundwater_quality.aspx?fbclid=IwAR2S11OZWhY5_oY_eJISRb07HRjnHECJGM0zkfFbGsjQfhX-C8igP9w_So)

Local councils are not adequately testing for hazardous chemicals. This might explain why our contaminated land register is empty, even though we know hazardous activities have taken place at sites like Manston Airport.

<https://www.facebook.com/chemtrust.org/posts/3321624591231034>

How much toxic waste has Manston fire training centre left behind?

"Small increases in people's exposure to air pollution are linked to significant rises in depression and anxiety, according to the first such study of UK adults."

<https://www.theguardian.com/environment/2020/oct/24/small-increases-in-air-pollution-linked-to-rise-in-depression-finds-study?fbclid=IwAR3chY->

[St7rltpBqsRmMV2WdAnFcX4yEa5-zFNHrbWFIT8hYeC2W1reque4](#)

"A large number of studies have examined possible relationships between levels of per- and polyfluoroalkyl substances (PFAS) in blood and harmful health effects in people. However, not all of these studies involved the same groups of people, the same type of exposure, or the same PFAS. These different studies therefore reported a variety of health outcomes. Research involving humans suggests that high levels of certain PFAS may lead to the following:

Increased cholesterol levels

Decreased vaccine response in children

Changes in liver enzymes

Increased risk of high blood pressure or pre-eclampsia in pregnant women

Small decreases in infant birth weights

Increased risk of kidney or testicular cancer

At this time, scientists are still learning about the health effects of exposures to mixtures of different PFAS."

Furthermore:

"exposure to high levels of PFAS may impact the immune system. There is evidence from human and animal studies that PFAS exposure may reduce antibody responses to vaccines (Grandjean et al., 2017, Looker et al., 2014), and may reduce infectious disease resistance (NTP, 2016). Because COVID-19 is a new public health concern, there is still much we don't know. More research is needed to understand how PFAS exposure may affect illness from COVID-19."

[https://www.atsdr.cdc.gov/pfas/health-effects/index.html?CDC\\_AA\\_refVal=https%3A%2F%2Fwww.atsdr.cdc.gov%2Fpfas%2FPFAS-health-effects.html&fbclid=IwAR0BcXoA0JFEM3mk7hhzoVwflcfR9a3ExBIIQz7fCR9kjWHDZEeCu3K-5n4](https://www.atsdr.cdc.gov/pfas/health-effects/index.html?CDC_AA_refVal=https%3A%2F%2Fwww.atsdr.cdc.gov%2Fpfas%2FPFAS-health-effects.html&fbclid=IwAR0BcXoA0JFEM3mk7hhzoVwflcfR9a3ExBIIQz7fCR9kjWHDZEeCu3K-5n4)

Well, this is fun.

"Researchers worry PFAS, commonly found in the bodies of Americans, will reduce the immunization's effectiveness"

And in the bodies of Thanetians, no doubt. If we were to get tested...

[https://www.theguardian.com/world/2020/nov/17/chemicals-found-in-everyday-products-could-hinder-covid-19-vaccine?fbclid=IwAR0BejYfiIwnNaqWNXLA-7RsAm8TC7EnHlUhyY6Xu-4l9Hh-\\_\\_nn\\_REJ\\_RJE](https://www.theguardian.com/world/2020/nov/17/chemicals-found-in-everyday-products-could-hinder-covid-19-vaccine?fbclid=IwAR0BejYfiIwnNaqWNXLA-7RsAm8TC7EnHlUhyY6Xu-4l9Hh-__nn_REJ_RJE)

"Hundreds of landfills around England and Wales containing hazardous waste are located beneath green spaces, schools and housing, analysis of official data has found.

Experts say authorities are "setting themselves up for a large sequence of nasty surprises" if the toxic substances were to escape, with council funding shortfalls meaning many sites are not being dealt with appropriately. The contents of hundreds of sites remain unknown even to the Environment Agency (EA).

According to agency data mapped by the Ends Report, there are more than 21,000 old landfills scattered across England and Wales. Of these, 1,287 are categorised as containing hazardous waste, which could pose a health risk to people and the environment it escapes into the surrounding air, water, soil and vegetation. About 746 toxic dumps are located within 500 metres of water bodies, 13 are beneath golf courses and four below school grounds.

Old dumps can contain substances now banned or restricted such as asbestos, polychlorinated biphenyls (PCBs), PFOA and PFOS, all of which are extremely toxic to human health and the environment.

The risks associated with old sites are exacerbated by their position: 1,364 old dumps are in zones at risk of tidal flooding, many near protected conservation areas.

A recent EA assessment revealed that every English river failed to meet legal health standards as a result of what it called the "ubiquitous" presence of chemicals such as PFOS, PFOA and brominated flame retardants. Old unlined landfills are not the only source of these substances but it is likely they make a contribution.

Part of the problem lies in the lack of funds for cleaning up old toxic sites. It is the responsibility of local authorities to identify them and organise the cleanup, and to bring the worst cases to the attention of the Environment Agency or Natural Resources Wales, neither of which are funded to undertake any investigative work in this area. Councils do not have adequate money, leaving the sites in limbo unless a developer chooses to buy, remediate and develop them."

So, when is TDC going to figure out what is under Manston?

Right on top of our biggest ground water aquifer?

And next to the protected coast at Pegwell Bay?

<https://www.theguardian.com/environment/2021/jan/15/toxic-waste-lies-beneath-schools-and-homes-uk-landfill-map-shows?fbclid=IwAR29BzRTlgr83zVypND4IRbNtUikHoozmHDpXtpSuyYQnAR4ox43KkZ2io>

Time to firmly establish the level of PFAS pollution in Thanet?

This new study suggests:

"there may be opportunities for those living in areas with elevated PFAS contamination, or working jobs that result in significant PFAS exposure such as firefighters and military personnel, to be prioritised when it comes to receiving a Covid-19 vaccine or even an extra booster.

'People with higher levels of PFAS in their blood are at increased risk of immunotoxicity and this may increase the risk of a more severe Covid reaction.'"

It also dampens vaccine protection.

[https://www.chemistryworld.com/news/pfas-exposure-found-to-increase-risk-of-severe-covid-19/4012992.article?fbclid=IwAR1Tz9qrpOolV0uYYT2Z3wvS\\_1KE-HwbXYhp4HSFVsfQmAVxi3yQq8H-lpQ](https://www.chemistryworld.com/news/pfas-exposure-found-to-increase-risk-of-severe-covid-19/4012992.article?fbclid=IwAR1Tz9qrpOolV0uYYT2Z3wvS_1KE-HwbXYhp4HSFVsfQmAVxi3yQq8H-lpQ)

Even Thanet District Council acknowledged the huge impact the Brexit lorry park had in added pollution and traffic but also in possible contamination of our water aquifer in the event of a fire or spillage of hazardous chemicals. Why would an airport be any different?

<https://thisisofthanetnews.com/2020/11/25/risk-to-lives-and-serious-fire-incident-fears-raised-over-use-of-manston-as-brexit-lorry-park/?fbclid=IwAR03p05KPFc8ah6VTTMuoe1GGhCSYcvbIlu6nuiKYRa4dYLqU0eFX6EMR4>

During the use of Manston as a lorry park there were vast amounts of light pollution - none of which was monitored.

Manston Airport is right next to Pegwell Bay, which is an extremely important migratory bird nesting ground. How did the large amount of new floodlighting at night affect them?

Where were the surveys to assess this? This will be a major issue with an airport also

"Given that most songbirds migrate at night, it's no surprise that light pollution is a significant contributor to the harm of these birds. In addition to disrupting circadian rhythms, excessive artificial light at night (ALAN) can also disorient birds during migration."

<https://www.darksky.org/light-pollution-poses-threat-to-migrating-birds/?fbclid=IwAR3pboMRI9770hAlfxyGuZJMx3dZCzimMIGM2N91luZC55DHckyDsBwoPzk>

Guidance from Sports England on Floodlighting for sport.

Why was no one in Thanet consulted on the gross amount of floodlighting suddenly installed at Manston Airport?

Where are the bat surveys?

"The provision of floodlighting can be contentious, particularly if the sports area is adjacent to residential areas or within a particularly sensitive location. Local consultation should be undertaken. Neighbours should be informed of the lighting proposals at an early stage in the project, before it is too late to make changes to address any concerns neighbours may have. Depending on the scale of the lighting proposals, a public exhibition may sometimes be appropriate. In due course, the Planning Authority will circulate the proposals to the neighbours, as part of the process of considering the application. It is preferable for the neighbours already to have had a chance to have some input in the preparation of the proposals, rather than hearing of them for the first time when the Planning Authority asks for their views."

"Visual impact

Many Local Authorities have published classifications for the night-time environment and lighting levels for particular sites. Some have set limits on acceptable levels of obtrusive light, while others may refer to the ILP Guidance. Highway Authorities may also set limits on lighting spillage onto roads, or on the source intensity of the lights, seen from the road. There are strict limits on lighting in aerodrome and airport runway approach corridors as well.

Since the Wildlife & Countryside Act (1981) makes it illegal to kill, injure, capture or disturb bats, some authorities will require a study of the likely effects of the proposed lighting on bats. This may require monitoring the site for the presence of bats over a period of several evenings. Opinions vary as to the degree of the effect of artificial lighting on bats, but most authorities agree that they are detrimental. Care must be taken to minimise the effects, by avoiding lighting the corridors - usually hedgerows or lines of trees - along which bats 'commute' in their search for food.

Obtrusive light

The ILP Guidance Note GN01 deals with the problem of obtrusive light at length.

The avoidance of obtrusive light from poorly designed or badly maintained outdoor sports lighting is important for a number of reasons.

It represents wasted energy that will effect overall sustainability

Remember that every lumen emitted by the lights must be paid for. It is in the pitch owner's interests to make sure that as much of the light as possible falls on the area where it is wanted.

It has the potential to cause a nuisance to surrounding areas

Unwanted light can be an intrusion into the neighbours' properties and lives. None of us welcome uninvited disturbance.

It can damage the night environment through glare, sky luminance and site aura.

Introducing floodlighting into the darkness of the night can lead to spillage of misdirected light into areas or volumes other than those where it is needed, changing the natural state of the night-time environment. This can be a nuisance to people and can seriously impact on nocturnal wildlife. Glare can be minimised by careful design

of the lighting installation. When properly aimed, modern double-asymmetric floodlights should not emit any light above the horizontal plane. Sky 'aura', meaning the glow which appears above a lit pitch when it is viewed from a distance at night, results from a combination of the reflectance of the pitch surface and light scattering by dust or moisture in the air above the pitch. As such, it is a consequence of factors other than the lighting itself and is largely unavoidable."

[https://sportengland-production-files.s3.eu-west-2.amazonaws.com/s3fs-public/artificial-sports-lighting-design-guide-2012-051112.pdf?fbclid=IwAR16hOI7OUTYeEmE5I0ROu8SCDBRo9nWpPIKNXeDS6ui95tNjZ\\_b4NtCiFU](https://sportengland-production-files.s3.eu-west-2.amazonaws.com/s3fs-public/artificial-sports-lighting-design-guide-2012-051112.pdf?fbclid=IwAR16hOI7OUTYeEmE5I0ROu8SCDBRo9nWpPIKNXeDS6ui95tNjZ_b4NtCiFU)

Presumably a sink hole, no matter how big, is an indicator of the unknown structural integrity of the ground below the runway... There is an important drinking water aquifer for Thanet running directly beneath it the runway. And then there are the alleged tunnels....

Will all large load bearing infrastructure cause problems on Manston? Planes... lorries... housing... where are the assessments?

<https://theislandofthanetnews.com/2020/12/31/sinkhole-opens-up-on-manston-lorry-park-area/?fbclid=IwAR1pgv2zaXXeF8y0QsDBbRS1VDR-OjXgk7-JL5NAT2ISZv3MOAqEh6K-GF>

"Tony Freudmann, from owners RiverOak Strategic Partners, who visited the site on Friday, told Kent Online: "I think it has been dug out for some reason in the past and then been capped. Contrary to some reports, it is not on the main runway of the airport, but is on an old taxi runway adjacent."

He added: "I'm sure any restoration will be done in close collaboration with the Environment Agency because it is known there is a water aquifer."

Does he have any clue what he is doing?

<https://www.theguardian.com/uk-news/2021/jan/02/authorities-investigate-possible-sinkhole-in-kent-lorry-park>

"As an aviation economist, I can safely say that Manston, irrespective of the level of investment funding, will never attain the cargo throughput to make the hub financially viable, which RSP say is between 150,000 – 200,000 tonnes per annum....

Some residents support the proposals due to the significant level of jobs that the developer, Riveroak Strategic Partners (RSP) claim would be created...

RSP seem now to be backtracking... saying that they would not be as high as they originally stated and were assessed by the Government and the Planning Inspectorate due to automation. It is difficult to understand why this was not considered in the first instance. Many local residents are concerned about aircraft noise, particularly if night flights were ever to be introduced and about the impact of the development on climate change...

What are the motives of RSP and Stone Hill Park ?

If a major freight hub at Manston is not commercially viable, as is predicted by all industry experts, then we need to look at the motives of RSP and of Stone Hill Park, who originally sold the site to RSP, reportedly for £16.5m. It is important to appreciate that the only commercial value at Manston is in the sale of the land, ideally for residential housing but, on a secondary level, for industrial development. This, however, must largely be seen as a longer-term strategy as the site is not designated for housing in Thanet District Council's Local Plan, which may have prompted Stone Hill Park to sell the site to RSP. We do not know the precise details of this sale, but it seems hard to believe that in the event of any future land sales, Stone Hill Park would get no financial payback...

Whilst it is possible that, if the Appeal is unsuccessful, a small number of jobs could be created in the short-term, it is unlikely that the airport would ever require more than the 150 staff it employed when it closed in 2014. There is likely to be a continuing fear of the possibility of reintroducing night flights and climate change concerns will not vanish away.

<https://www.alanstratford.co.uk/aviation-insights/manston-airport-a-win-win-scenario-for-the-developer-but-not-for-east-kent/>

Many thanks

Amelia Gregory