

Objection to proposed mast on Regents Park Road

ref: 2021/1813/P

Area of footpath o/s No. 68
Regent's Park Road
London
NW1 8UD

“Erection of 18m Phase 8 Monopole, C/W wraparound Cabinet at base and associated ancillary works (telecommunications installation)”

GROUND'S FOR OBJECTION

1. SITING AND VISUAL AMENITY

Mast base stations are large and unsightly, being intrusive and overbearing on dwellings and resulting in loss of outlook. A mast base station in this area would denigrate the overall aesthetics of this attractive, leafy road and could cause devaluation of property, particularly in the light of ongoing global legal action and increasing awareness of the disadvantages of phone masts. The Primrose Hill area is a particularly attractive part of London which already has full mobile coverage; further masts are not only unsightly but are also unnecessary. People visiting the park may be discouraged by such overdevelopment.

2. NON-ADHERENCE TO THE CODE OF BEST PRACTICE ON MOBILE NETWORK DEVELOPMENT

The Code (Code of Best Practice 2016: Edition Agreed: 24.06.2016) stipulates that telecommunications providers should adhere to principles of the National Planning Policy Framework: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

Notable points:

‘2.5 The NPPF advises that...developments improve the environmental conditions of the area.’

Objection: Any new mast or addition to existing masts will necessarily degrade the environmental conditions of the area, because:

- a) masts are unsightly and create visual clutter
- b) masts emit a toxic effluent and pollutant which is known to harm wildlife and humans, according to the definitions from the Environmental Protection Act 1990 (EPA 1990), the Pollution Prevention and Control Act 1999 (PPCA 1999), and the EU Directive on Industrial

Emissions (2010/75/EU). The Acts specifically reference 'organ toxicity', listing as examples of this cell mutagenicity, carcinogenicity, and reproductive toxicity.

'2.7 Section 5 of the NPPF states that the numbers of radio and telecommunications masts and sites for such installations should be kept to a minimum consistent with the efficient operation of the network.' Where there is already full network coverage it cannot be said that there is consumer need or demand for more masts.

'2.8 The following key point in the NPPF is also relevant to this code: *Protecting and enhancing valued landscapes.*'

'5.7 Good mobile connectivity...contributes to minimising pollution, and mitigating climate change and helps in the move towards a low carbon economy.' **Objection:** The proposed mast would violate this point as a) the energy required by phone masts is high and provably a major contributor to carbon dioxide emissions; b) masts emit a toxic effluent which is a proven pollutant.

'The mobile operators are committed to appropriate community engagement and will undertake suitable pre-application consultation with local residents, communities and their representatives, in addition to any carried out by the Planning Authority once the formal application is submitted.'

The Code states that the following considerations should be made:

- Proper assessment of the character of the area concerned, especially in relation to designated heritage assets and their setting, where more sensitive design solutions may be required
- Analysis of the near and far views of the proposal and to what extent these will be experienced by the public and any residents
- Proposals should respect views in relation to existing landmarks and distant vistas;
- Proposals should seek to consider the skyline and any roofscapes visible from streets and spaces;
- Mast and/or site sharing should be applied where possible
- Extra care will need to be taken when installing equipment on listed buildings, within scheduled monuments (see section on Listed Buildings and Scheduled Monuments below) or on structures and/or buildings located in areas of historic and architectural importance or in designated areas, such as National Parks, Conservation Areas, World Heritage Sites, Sites of Special Scientific Interest, Areas of Outstanding Natural Beauty or registered Parks and Gardens and Battlefields.
- When placing equipment on buildings and/ or structures operators should aim for development to: be kept in proportion to the building or structure; respect architectural style; minimise impact above the roof line commensurate with technical constraints; minimise impact on important views and skyline; avoid creating undue clutter

Protected Sites and Area Guidance

'Operators should bear in mind that there are certain locations where sensitive siting and design are of increased importance. These include:

- (i) Designated heritage sites and their settings: World Heritage Sites, Conservation Areas; Scheduled monuments; Listed buildings; Registered Parks and Gardens; Registered Battlefields
- (ii) National Parks;
- (iii) Areas of Outstanding Natural Beauty; and

(iv) Sites of Special Scientific Interest.

In these areas, particular attention will need to be paid to the nature of the proposals, the significance of the location, the impact that the proposals could have and the need to reduce any adverse impact. Operators may sometimes be able to avoid a specific site (e.g. a Listed Building) but not an entire protected area (e.g. a National Park) in which case they should seek to minimise the impact through sensitive design and appropriate siting of the proposals.'

Local authorities should not seek to prevent competition between operators

As per the submitted 'Site specific supplementary information', the current limitations of 5G technology will require a higher density of masts due to the smaller coverage area over previous generations of technology, and, that due to the increased weight of the antennas, the applicant states they are unable to share the mast with other operators in an urban environment. Therefore, separate masts need to be erected for each operator. By granting permission for an application, the LPA could inadvertently be affording the applicant a monopoly over 5G coverage in the area, which would be in conflict to Paragraph 116 of the NPPF. Furthermore, should permission for this application be granted, and other operators gain permission for individual 5G masts, this would result in a higher density of masts in an urban environment, which is considered contrary to Paragraph 113 of the NPPF.

3. IMPACTS ON HEALTH

Councils should object on grounds of harm to health

The National Planning Policy Framework states that '*Local planning authorities must determine applications on planning grounds only*' (2019 Para 116). However, this framework is advisory, not legislation or law. [As asserted by Lord Gill in the Supreme Court judgment in *Suffolk Coastal District Council v Hopkins Homes Ltd et.al*: 'the guidance given by the Framework (the NPPF) is not to be interpreted as if it were a statute. Its purpose is to express general principles on which decision-makers are to proceed in pursuit of sustainable development.']

Under NPPF Article 4 (Para 38) councils do in fact have the authority to bar the progression of an ill-conceived and incomplete proposal if it is deemed not to be in the interests of environmental or public health.

Mast radiation is a proven health hazard and pollutant. There is evidence in the Kostoff 2020 paper (<https://www.sciencedirect.com/science/article/abs/pii/S037842742030028X>) and <https://ehtrust.org/science/> that microwave radiation from masts causes adverse health effects beyond the effects which are protected for in the UK adopted ICNIRP guidelines. It is known that radiation exposure levels within 500m of a mast increases the risk of neurological symptoms, headaches and loss of memory and learning capabilities, especially in children. (https://www.researchgate.net/publication/337624982_Limiting_liability_with_positioning_to_minimize_negative_health_effects_of_cellular_phone_towers) In addition, several studies show that phone mast radiation can harm insects and wildlife as well as vegetation and that masts have a

high carbon footprint, as per statements by the French Climate Council and expert analyses. The evidence also shows that the ICNIRP guidelines are not protective of health (see Section 5).

Councils should make an evidence-based determination of the material planning consideration 'incompatible and unacceptable use' of land. The 2018 EEC code transposed into Law in Dec 2020 clearly states that public health is an imperative and competent authorities should be reconciling the risks. The public have a right to declare that they do not want to take the risk given the evidence of harm and the absence of safety-testing of 5G technology.

NPPF 2019 8b) states: 'The purpose of the planning system is to contribute to the achievement of sustainable development...[Meeting the] social objective [requires] support[ing] strong, vibrant and healthy communities, by ... fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being.'

And:

'Local planning authorities should...work proactively with applicants to secure developments that will improve the economic, social and environmental conditions of the area.' (NPPF 2019: para 38).

Please also note your obligations under the Health & Social Care Act 2012, which states: '2b) Functions of local authorities and the Secretary of State as to improvement of public health: Each local authority must take such steps as it considers appropriate for improving the health of the people in its area. (3) Subsection (4a) the protection of the public from ionising or non-ionising radiation.'

Local authorities' public health responsibilities standard note SN06844 March 2014 states: Local authorities have, since 1 April 2013, been responsible for improving the health of their local population...Health is a devolved matter'

The separate Library Note, *Health and Wellbeing Boards (England)*, states that these Boards are intended to: improve the health and wellbeing of the people in their area; reduce health inequalities; and, promote the integration of services, including providing assistance to help individuals minimise risks to health arising from their accommodation or environment.

Regulation 8 imposes a duty on local authorities to provide information and advice to certain persons and bodies within their area in order to promote the preparation of, or participation in, health protection arrangements against threats to the health of the local population, including environmental hazards.

The impact of a proposal on health and well-being, in specific circumstances, are material planning considerations. Local authorities have obligations and powers which extend beyond paragraph 116. It is required to act on the evidence that demonstrates that RFR has toxic effects that qualify it as a pollutant from an environmental public health perspective. The Council is now in receipt of this evidence, as presented in this document.

Where NPPF policies conflict, material planning considerations and related evidence will be decisive. The application can be refused through a determination that ICNIRP certification made by the applicant is insufficient to counter the evidence that on siting grounds the applicant's proposal is an 'incompatible or unacceptable use' of the land that the applicant intends to deploy.

Evidence of harm to health from telecommunications base stations

- Two large recent studies, the \$30million US National Toxicology Program and the Ramazzini Cancer Research Institute study, showed 'clear evidence' of cancer from RFR from both far and near field. <https://www.niehs.nih.gov/health/topics/agents/cellphones/index.cfm>; Belpoggi et al. (Ramazzini Institute), "[Report of final results regarding brain and heart tumors in Sprague-Dawley rats exposed from prenatal life until natural death to mobile phone radiofrequency field representative of a 1.8 GHz base station environmental emission](#)"
- The world's leading independent scientific researchers in RFR are appealing to the WHO and IARC (The International Agency for Research on Cancer) to upgrade the classification of RFR to the 'Class 1' category.
- At least thirty-two studies show neurological problems and cancer clusters in the vicinity of phone masts (see list, below).
- A major review by Professor Henry Lai of the University of Washington shows harm to health from masts: 'Biological effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays' [https://www.researchgate.net/publication/233593841 Biological effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays](https://www.researchgate.net/publication/233593841_Biological_effects_from_exposure_to_electromagnetic_radiation_emitted_by_cell_tower_base_stations_and_other_antenna_arrays)
- An article in *The Lancet* states that the majority of studies show harm to all living things from RFR. '*Mounting scientific evidence suggests that prolonged exposure to radiofrequency electromagnetic radiation has serious biological and health effects...This weight of scientific evidence refutes the prominent claim that the deployment of wireless technologies poses no health risks at the currently permitted non-thermal radiofrequency exposure levels. Instead, the evidence supports the International EMF Scientist Appeal by 244 scientists from 41 countries who have published on the subject in peer-reviewed literature and collectively petitioned the WHO and the UN for immediate measures to reduce public exposure to artificial electromagnetic fields and radiation.*' See: Bandara P and Carpenter D, 2012. Planetary electrosmog: it's time to assess its impact. *The Lancet Planetary Health* 2(12). [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(18\)30221-3/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(18)30221-3/fulltext)
- A 2021 article in the *British Medical Journal* by epidemiologist Professor William Frank calls for a halt to the 5G rollout and outlines the proven health issues caused by microwave radiation:: <https://www.bmj.com/company/newsroom/stop-global-roll-out-of-5g-networks-until-safety-is-confirmed-urges-expert/>

- A 2020 Consensus Statement by PHIRE Medical declaring that microwave radiation from masts and devices causes harm has been signed by 3,500 medical and scientific experts <https://phiremedical.org/2020-nir-consensus-statement-read/>
- In current legal action against the US Federal Communications Commission for failing to update guidelines on wireless radiation safety, 11,000 pages of evidence were submitted: <https://childrenshealthdefense.org/wp-content/uploads/chd-v-fcc-press-release-1.21.21.pdf?eType=EmailBlastContent&eld=e3f42b70-2e07-4dd7-b896-bd087627302a>
- The Swiss expert group on radiation, BERENIS, has produced a 2021 paper showing that wireless radiation may be particularly harmful to the young, vulnerable, and old: <https://ehtrust.org/wireless-and-power-frequency-emfs-impact-oxidative-balance-says-swiss-expert-group/>
- Professor Anthony Miller, epidemiologist and oncologist, formerly of IARC, has written extensively on RFR and brain tumours including this paper: Morgan L L, Miller A B, Sasco A, Davis D L. (2015) Mobile phone radiation causes brain tumors and should be classified as a probable human carcinogen (2A) (review) *Int J Oncol.* 46:1865–71. doi: 10.3892/ijo.2015.2908.
- Emeritus Professor Martin Pall of the University of Washington outlines some mechanisms by which RFR harms health (2018). Wi-Fi is an important threat to human health. *Environ Res* 164:404-416.
- Low frequency 5G will add another layer of radiation to that which already exists; high-frequency 5G will add frequencies with unknown results on health, since mixed frequencies have not been tested for safety. Biological harm has already been proven from 3G and 2G alone; by adding 4G and now 5G, people will be exposed to unprecedentedly high levels of RFR. Some experts estimate that 5G will add up to 30 or 40% to existing emissions.
- Research shows that millimetre waves penetrate the skin, affecting the nervous system and causing systemic damage. See: Kostoff et al, 2020. Adverse health effects of 5G mobile networking technology under real-life conditions. *Toxicology Letters* 323; 35-40. <https://www.sciencedirect.com/science/article/abs/pii/S037842742030028X>
- Researchers warn of skin cancer from millimetre wave 5G. Mortazavi S. M. J., Mehdizadeh A R. 2019. 5G Technology: Why Should We Expect a shift from RF-Induced Brain Cancers to Skin Cancers? *J Biomed Phys Eng.* Oct; 9(5): 505–506.
- In a Senate Hearing wireless carriers conceded that there are no scientific studies on the safety of 5G technologies: <https://www.blumenthal.senate.gov/newsroom/press/release/at-senate-commerce-hearing-blumenthal-raises-concerns-on-5g-wireless-technologys-potential-health-risks>
- Professor Tom Butler on particular harm to children and young people: [Clear-Evidence-of-the-Risks-to-Children-from-Smartphone-and-WiFi-Radio-Frequency-Radiation](#)
- Exposure to low frequency and radiofrequency electromagnetic fields at low intensities poses a significant health hazard that has not been adequately addressed by national and international

organizations such as the World Health Organization. This is a particular concern in children. Belpomme et al [Thermal and non-thermal health effects of low intensity non-ionizing radiation: An international perspective](#) 2018

- The oxidative stress induced by RFR exposure should be recognized as one of the primary mechanisms of the biological activity of this kind of radiation. Yakymenko, Igor, et al (2016). ["Oxidative mechanisms of biological activity of low-intensity radiofrequency radiation."](#)
- A report prepared by 29 authors from ten countries, ten holding medical degrees (MDs), 21 PhDs, and three an MsC, MA or MPH. Exposure to low-intensity ELF-EMF/Static Fields and RFR at levels allowable under current public safety limits poses health risks. The [Bioinitiative Report](#) 2012 (updated 2020)
- Prof Frank J W (physician-epidemiologist, University of Edinburgh) [Electromagnetic fields, 5G and health: what about the precautionary principle?](#) Oct 2020
- Cindy L Russell. [5G wireless telecommunications expansion: Public health and environmental implications.](#) *Environmental Research*. April 2018.
- Di Ciaula, [Towards 5G communication systems: Are there health implications?](#) *Int J Hyg Environ Health*. 2018

List of published studies showing harm to health in the vicinity of mobile phone base stations

1. Santini et al. (2002) Five hundred and thirty people living near mobile phone base stations in France reported headaches, sleep disturbances, discomfort, irritability, depression, memory loss, and concentration problems. These effects were more pronounced the closer people lived to the mast.
2. Navarro et al. (2003) This Spanish study found that the greater the power density of microwaves in the home, the more severe were complaints of depression, fatigue, sleeping disorders, concentration problems, headaches, irritability, memory problems, loss of appetite, nausea, audio and visual dysfunction, dizziness, and cardiovascular problems.
3. Bortkiewicz et al. (2004) This Polish study confirmed that residents living close to mobile phone masts reported "Various complaints mostly of the circulatory system, but also of sleep disturbances, irritability, depression, blurred vision, concentration difficulties, nausea, lack of appetite, headache and vertigo. The study shows relationships between the incidence of individual symptoms, the level of exposure, and the distance between a residential area and a base station. This association was observed both in persons who linked their complaints with the presence of the base station and those who did not notice such a relation."
4. Eger et al. (2004) This study, commissioned by the German Federal Agency for Radiation Protection, compiled medical histories between 1994–2004 of people living in Naila, Bavaria. The study found a threefold increase in malignant tumours for people exposed for five years or more to cellphone masts within 400 metres, compared with people living further away.

5. Rössli (2004) This Swiss survey study reported that out of 429 questionnaires returned, 394 people reported symptoms from mobile phone tower exposure. Fifty-eight percent of these symptomatic people suffered headaches, 19% nervous stress, and 18% fatigue, while concentration difficulties were the most common complaint.
6. Wolf and Wolf (2004) A Tel Aviv University study of 622 people living in Netanya, Israel, revealed an overall fourfold increase in the incidence of cancer among residents living within 350 metres of a cellphone mast for a period of between three and seven years. Among women in the 350-metre group, the increase in cancer was 10 times the norm, compared with people living in other areas of the city.
7. Hutter et al. (2005) Three hundred and sixty-five people living near 10 cellphone masts in urban and rural Austria were studied. Reported symptoms of radiation included: headache, vertigo, tremors, cold hands and feet, exhaustion, difficulty concentrating, stress, and the urge for sleep. Radiation levels were 0.2 to 0.4 volts per metre, hundreds of times lower than legal US exposure standards of 47 to 61 volts per metre. Higher exposures showed higher percentages of health complaints.
8. Abdel-Rassoul et al. (2006) Residents living beneath or adjacent to a long-established mobile phone mast with numerous antennas in Egypt reported significantly higher occurrences of headaches, memory changes, dizziness, tremors, depressive symptoms and sleep disturbance than did a control group.
9. Meyer et al. (2006) compared the cancer incidence among 177,428 persons living in 48 municipalities in Bavaria between 2002 and 2003 in relation to base station coverage. "Cancer incidence was not found to be elevated in municipalities with cellular telephone relay stations. The cancer incidence was highly variable in areas without any relay station." This is the only study of human health around base stations that did not find any problems.
10. Preece et al. (2007) A study of three villages in Cyprus found "a considerable excess of migraine, headache and dizziness, which appears to share a gradient with radiofrequency exposure" that was mostly due to mobile phone base station radiation.
11. Eger et al. (2009) The Bavarian town of Selbitz conducted a health survey of 251 residents exposed to cell tower radiation at no more than 1 volt per metre. The study found a significant correlation, depending on dose exposure, for: insomnia, depression, cerebral symptoms, joint illnesses, infections, skin changes, heart and circulation disorders, disorders of vision/ hearing, and gastrointestinal problems.
12. Kundi and Hutter (2009) This important independent review of base station studies reported "strong indications that long-term exposure near base stations affects wellbeing. Symptoms most often associated with exposure were headaches, concentration difficulties, restlessness, and tremor. Sleeping problems were also related to distance from base station or power density."
13. Leitgeb et al. (2008) This study looked at the sleep patterns of 43 subjects when true- and sham-shielded from base station radiation in their homes. Four of the subjects showed dramatic changes in sleep patterns when exposed to the radiation.
14. Augner and Hacker (2009) This study examined relationships among 57 subjects to see if they were affected by living near base stations. Those reporting living near base stations "had significantly higher concentrations of alpha-amylase in their saliva, higher rates in symptom checklist subscales somatization, obsessive-compulsive, anxiety, phobic anxiety, and global strain index PST (Positive Symptom Total) ... EMF-related health concerns cannot explain these findings."
15. Elliott et al. (2010) For this study, researchers from Imperial College London looked at almost 7,000 children and explored whether there was any correlation between a mother living near a mobile phone base station during her pregnancy and that child's risk of developing cancer. While

the study claimed not to find a pattern, there was in fact a 16% increase in childhood leukaemias at intermediate distances from towers.

16. Khurana et al. (2010) This independent review looked at ten epidemiological studies: “We found that eight of the 10 studies reported increased prevalence of adverse neurobehavioral symptoms or cancer in populations living at distances under 500 metres from base stations. None of the studies reported exposure above accepted international guidelines, suggesting that current guidelines may be inadequate in protecting the health of human populations.”

17. Levitt and Lai (2010) This independent review looked at reports and studies indicating “headaches, skin rashes, sleep disturbances, depression, decreased libido, increased rates of suicide, concentration problems, dizziness, memory changes, increased risk of cancer, tremors, and other neurophysiological effects in populations near base stations.”

18. Dode et al. (2011) This study looked at 7191 deaths by cancer in Brazil’s third-largest city, Belo Horizonte, between 1996 and 2006. The highest rate of deaths from cancer was found among those who had lived within 500 metres of cellphone masts; there was a 35% increase in cancers for those living within 100 metres. There were high rates of prostate, breast, lung, kidney and liver cancer among the victims living closest to masts.

19. Buchner et al. (2011) In this study conducted in Bavaria, Germany, urine samples of 60 study participants were analysed for their adrenaline, noradrenaline, dopamine, and phenylethylamine (PEA) levels before and after the activation of a new GSM cell tower. After activation, the stress hormone levels increased significantly, while dopamine and PEA levels decreased substantially. Sleep problems, headaches, allergies, dizziness, and concentration problems were common. This study indicates that base station radiation induces radical dose-responsive changes in human stress hormones.

20. Li et al. (2012) This Taiwanese study focused on childhood tumours in relation to RF exposure from cell towers erected between 1998 and 2007. Researchers calculated the annual power emitted by all 71,185 cell towers in Taiwan and compared the calculated exposure of populations in each irradiated township: “This study noted a significantly increased risk of all tumours in children with higher-than-median RF exposure to mobile phone base stations.”

21. Eskander et al. (2012) This Egyptian cellphone tower study focused on the changes in human hormone profiles. Blood samples were taken from volunteers prior to the installation of a base station. Following installation, ongoing samples were taken which showed a significant decrease in volunteers’ ACTH, cortisol, thyroid hormones, prolactin for young females, and testosterone levels.

22. Navarro et al. (2013) An extension of their earlier study, this found significant correlations with lack of appetite; lack of concentration; irritability; and trouble sleeping. Controls for demographic factors and other possible risk factors were applied. Concerns about exposure did not affect the strong and direct association between exposure and sleep disorders.

23. Shahbazi et al. (2014) This Iranian study was conducted on 250 randomly selected people living near cell towers. Statistically significant symptoms included: nausea, headache, dizziness, irritability, discomfort, nervousness, depression, sleep disturbances, memory loss, and lack of libido among people living within 300 metres of the cellphone towers, compared with those living further away. While this paper appears to have been retracted for no given reason, it is recorded here for interest, given the health situation in Iran with the COVID-19 outbreak.

24. Gandhi et al. (2014) This case-control study evaluated genetic damage in individuals living in the vicinity of cellphone towers. The blood of irradiated subjects showed significantly elevated DNA damage compared with non-irradiated control subjects matched for gender, age, and other factors. Females were especially affected by cellphone tower DNA damage.

25. Shiniyo et al. (2014) This study documents the myriad serious health effects suffered by condominium inhabitants living under rooftop antennas in Japan, who were examined by medical

professionals. Every single one of a long list of illnesses suffered by the residents during their years of exposure improved after the antennas were deactivated. The symptoms ascribed to microwave radiation include numerous neurological dysfunctions, eye damage, severe fatigue, and tumours.

26. Meo et al. (2015) This Saudi Arabian study examined 159 students with varying exposure to base station radiation and found significantly elevated levels of glycolated haemoglobin (HbA1c) and risk of type 2 diabetes among those with high exposures.

27. Pachua (2014) This Indian study looked at 64 adults living at varying distances from a base station. Complaints of fatigue, nausea, dizziness and muscle pain were significantly higher from those living within 50 metres of the base station.

28. Golati et al. (2016) Scientists studied 116 persons exposed to radiation from mobile towers and 106 control subjects. The researchers looked for DNA damage in peripheral blood lymphocytes using alkaline comet assay and micronucleus assay in mouth tissue cells. They found significant DNA damage among cellphone tower subjects as compared with the non-irradiated control group, including increased micronucleus frequencies. Micronuclei are known precursors for cancer.

29. Prakash et al. (2016) This study of 181 inhabitants of Bangalore found that "headache, irritability, nausea, appetite loss, discomfort, sleep disturbance, depression, memory loss difficulty in concentration and dizziness, etc., are more frequently observed symptoms of ill-health in the exposed groups. It is concluded that the cell phones and cell phone tower radiation are a strong risk factor for all the adverse health effects."

30. Singh et al. (2016) This Indian study examined the general health and salivary function of 20 persons living near base stations and 20 on their periphery. "It was unveiled that a majority of the subjects who were residing near the mobile base station complained of sleep disturbances, headache, dizziness, irritability, concentration difficulties, and hypertension. A majority of the study subjects had significantly lesser stimulated salivary secretion ($P < 0.01$) as compared to the control subjects."

31. Siersma et al. (2016) Medical scientists from Denmark and Sweden launched an electronic questionnaire posted to special interest websites. The questionnaire requested feedback on symptoms suffered by people exposed to cell phones, Wi-Fi, occupational radiation, energy-saving light bulbs and cell towers. Of 60 respondents, significant associations were noted for both chronic exposure to Wi-Fi and for cell tower exposure. Symptoms associated with tower antennas included: cognitive, head, eye, body and skin problems. The report noted: "Mobile phone towers seem to be the most problematic of the various EMF exposures."

32. Zothansiam et al. (2017) looked at cultured human peripheral blood lymphocytes of individuals residing in the vicinity of mobile phone base stations, compared with healthy controls. This Indian study matched the groups for various demographic data including age, gender, dietary pattern, smoking habit, alcohol consumption, duration of mobile phone use and average daily mobile phone use. The 40 exposed subjects showed significantly higher frequencies of micronuclei, changes in glutathione, and increased oxidative stress, compared with controls.

33. Meo et al. (2018) This Saudi Arabian study examined 217 students at two schools with varying exposures to base station radiation. Significant impairment in motor screening tasks and spatial working memory tasks was identified among the group of students who were exposed to high levels of base station radiation. "High exposure was associated with delayed fine and gross motor skills, spatial working memory, and attention in school adolescents compared to students who were exposed to low RF-EMF."

4. IMPACTS ON ENVIRONMENT, WILDLIFE AND BIODIVERSITY

Local authorities are expected to safeguard the quality of the local environment and some have a statutory duty to help conserve biodiversity and species protection as part of the planning process. Councillors are in a position to help preserve the natural environment for the benefit of future generations and to promote sustainability.

Telecommunications base stations harm the environment in the following ways:

Climate change

The expansion of the use of digital technology and the 5G wireless network is a major contributor to increased energy consumption. The energy consumption of mobile phone usage is projected to increase by 170% by 2026 as a result of 5G. By 2030 information technology will consume one fifth of all global electricity, with a carbon footprint equal to the entire global aviation industry.

The French Climate Council states that an extra 7 billion tonnes of carbon dioxide could be released into the atmosphere by 5G: <https://www.france24.com/en/europe/20201220-deploying-5g-will-lead-to-spike-in-co2-emissions-french-climate-council-warns>

Smart tech's carbon footprint: <https://theecologist.org/2020/apr/30/smart-techs-carbon-footprint>

Harm to wildlife

List of studies regarding potential harm to wildlife compiled by the Environmental Health Trust, a US foundation run by the Nobel lead author and eminent environmental oncologist Dr Devra Davis: <https://ehtrust.org/science/bees-butterflies-wildlife-research-electromagnetic-fields-environment/>

A report in *Science of the Total Environment* (2021) shows that electronic radiation is an emerging driver factor for the decline of insects, including bees, and that an increasing number of reports is consistent with laboratory studies. The review states that 'the precautionary principle should be applied before any new deployment (such 5G) is considered.' See also: Balmori, 2006, 2009, 2014 and 2015. Electromagnetic radiation as an emerging driver factor for the decline of insects <https://www.sciencedirect.com/science/article/abs/pii/S0048969720384461>

The Thill Review: evidence of harm to insects: https://ehtrust.org/wp-content/uploads/Thill_Review_Insects_2020_Engl.pdf

The EKLIPSE report lists studies showing harm to insects and other wildlife and calls for further research: http://www.eclipse-mechanism.eu/documents/15803/0/EMR-WebConferenceReport_FINAL_27042018.pdf/b5117399-2231-473e-b25c-ee24e6b78342

65% of 113 published studies (50% of the animal studies and about 75% of the plant studies) RF-EMF had a significant effect on birds, insects, other vertebrates, other organisms and plants. The review paper cites development and reproduction in birds and insects as the most strongly affected

endpoints. Cucurachi, C., et al. [“A review of the ecological effects of radiofrequency electromagnetic fields \(RF-EMF\).”](#) Environment International, vol. 51, 2013, pp. 116–40

Harm to vegetation/trees

A field monitoring study spanning 9 years involving over 100 trees found trees sustained significantly more damage on the side of the tree facing the antenna, leaving the entire tree system prone to degradation over time. Waldmann-Selsam et al, [Radiofrequency radiation injures trees around mobile phone base stations](#) 2016

This study on aspen seedlings found ambient RF levels in a Colorado setting were high enough to cause necrotic lesions on the leaves, decrease leader length and leaf area, and suppress fall anthocyanin production. Haggarty, [Adverse Influence of Radio Frequency Background on Trembling Aspen Seedlings: Preliminary Observations](#) 2010

Waldmann-Selsam , de la Puente, Balmori (2016) ‘Radiofrequency radiation injures trees around mobile phone base stations’, *Sci Total Environ*, 1;572:554-569.
<https://www.ncbi.nlm.nih.gov/pubmed/27552133>

Further reading

<https://mdsafetech.org/environmental-and-wildlife-effects/>
<https://www.raconteur.net/sustainability/5g-environmental-impact>
<https://jsis.washington.edu/news/what-will-5g-mean-for-the-environment/>

5. THE INVALIDITY OF THE ICNIRP GUIDELINES

Currently, provided applications are accompanied with an International Commission on Non-Ionizing Radiation Protection (ICNIRP) certificate, planning authorities are not required to make any further judgement on health and safety issues. However, it is important that local authorities note the following:

- Current legal action in the UK led by the leading human rights barrister, Michael Mansfield QC, seeks a judicial review of the UK Government’s decision to allow Public Health England to defer to the opinion of the ICNIRP.
- December 24th 2020: a judgement was made in the District Court of Gelderland in the Netherlands that harm to health may occur at field strengths lower than 1 V/m, roughly 50 times lower than the ICNIRP guidelines.
<http://translate.google.com/translate?hl=de&sl=nl&tl=en&u=stralingsbewust.info%2F2020%2F12%2F24%2Fdoorbraak-in-rechtspraak-rond-stralingsrisicos%2F&prev=search&sandbox=1>

- A 2020 ruling by the Court of Appeal of Turin stated that the ICNIRP are biased towards the industry and that their views should not be used as guidance <https://microwavenews.com/news-center/italian-supreme-court-affirms-tumor-risk>.
- A detailed 2020 report by the MEPs Michele Rivasi and Klaus Buchner exposed the ICNIRP as being biased and having financial conflicts of interest: https://www.michele-rivasi.eu/wp-content/uploads/2020/06/ICNIRP-report-FINAL-JUNE-2020_EN.pdf
- The core group in both the WHO and PHE consist of ICNIRP members. A review in the *International Journal of Oncology* outlines some of the conflicts of interest regarding the WHO: <https://pubmed.ncbi.nlm.nih.gov/28656257/>
- A presentation of conflicts of interest amongst PHE and ICNIRP by neuroscientist Dr Sarah Starkey whose evidence to Westminster preceded the disbanding of AGNIR: <https://www.degruyter.com/view/journals/reveh/31/4/article-p493.xml>
- A group of scientists states that ICNIRP's opinion and guidelines are unscientific and protect industry, not public health <https://www.emfcall.org/the-emf-call/>
- PHE's solicitors stated in 2019 that relevant parties should use their own discretion, *based on available evidence*, when making decisions regarding RFR. We are providing you with some of that evidence here.
- In 2020, the ICNIRP removed the 'vulnerable groups' section, which included children, from its guidance. Yet its 2002 guidelines stated that '*vulnerable people, such as the sick, elderly and children, would need non-thermal limits below its heatings-only limits.*'
- The over-reliance on ICNIRP, an NGO whose members have traditionally had close ties to industry. Prof Tom Butler – Submission on 5G for the Action Against 5G Judicial Review Case 2020

6. STATUTORY NUISANCE COMPLAINT

Mast emissions are a pollutant

RFR emitted by masts are defined as pollutants or potential pollutants under a) the Environmental Protection Act 1990 (EPA 1990), b) the Pollution Prevention and Control Act 1999 (PPCA 1999), c) the EU Directive on Industrial Emissions (2010/75/EU). Local councils have responsibilities under the Environmental Protection Act 1990 and the Pollution Control Act 1999.

The evidence of the polluting effects of RFR must be properly assessed under an 'incompatible or unacceptable use' designation as a material planning consideration, and in accordance with the first sentence of paragraph 180 of the current National Planning Policy Framework (NPPF), which reads:

'Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development'.

Material planning considerations should be investigated by the planning authority. It would be a breach of procedure for the Planning Committee and Planning Officers to approve proposals that are likely to generate harmful pollutants without first scrutinising an objective environmental risk assessment prepared by an Environmental Health Officer that addresses the evidence on the toxicity of RFR as an industrial pollutant which is provided to the Council in this document.

This application could be rejected by the council to avert nuisance, harm and injury risks which would be potentially caused by the industrial emission of RFR as a substance that is *'proven to possess carcinogenic or mutagenic properties or properties which may affect reproduction via the air'*, meeting the criteria for regulation under Articles of Directive 2010/75/EU on Industrial Emissions brought into effect through the Integrated Pollution Prevention and Control (IPPC) regime, as applied in the UK through the Pollution Prevention and Control Act 1999.

The emissions from the proposed mast will constitute a statutory nuisance and should the current planning application be approved, we will submit a formal Statutory Nuisance Complaint against the mast.

Exclusion Zones

All masts have an "exclusion zone" within which the radiation exceeds even the high levels which the ICNIRP suggests are acceptable. Ofcom's code of best practice dictates that these zones should be marked with warning signs. Please note that exclusion zones are much wider for 5G than 4G, as highlighted here: <https://www.fwi.co.uk/business/business-management/health-and-safety/how-to-manage-radiation-exclusion-zones-for-phone-masts>

8. EECC 2018 requirement

The European Electronic Communications Code (EECC) 2018 has clauses on public health. The first sentence of Recital 110 of the EECC 2018, which was subsumed into UK law in 2020, reads:

'the need to ensure that citizens are not exposed to electromagnetic fields at a level harmful to public health is imperative. Member States should pursue consistency across the Union to address this issue, having particular regard to the precautionary approach taken in Recommendation 1999/519/EC, in order to work towards ensuring more consistent deployment conditions'.

Under Recital 106:

'competent authorities should seek to reconcile the environmental and public health considerations in question, taking due account of the method and precautionary approach set out in Para 19, Council Recommendation 1999/519/EC.'

The Recitals/Articles have to be enacted by 'competent authorities', and as the UK Government relies upon local Councils to control RFR exposure through planning policy, Councils must be 'competent authorities' for the purpose of Recitals 106 and 110.

The material planning considerations outlined in this objection need to be made the subject of a competent evidence-based determination, in conjunction with your EHO, or alternatively this application must be rejected in the public interest on precautionary environmental public health grounds, reference recitals 106 and 110 of the EEC 2018 which are now applicable.

Please ensure that the Council's planning law obligations, as outlined above, are complied with correctly and effectively.

9. LIABILITY

The Government does not indemnify councillors against action taken against them for failure to safeguard the health and safety of citizens, which may conflict with duties outlined in Section 2B of the National Health Service Act 2006 (see further below).

To help protect Councils against any possible legal liability claims by residents in the future for harm caused by EMF radiation, the service providers in their planning applications must be required to disclose detailed information about the proposed installation, including the equipment description, the frequency bands to be used, and the power to be transmitted in each frequency band by the new 5G antennas (both on "day 1" and subsequently over a 5 year time-horizon, if expansion is foreseen), as well as information about the power already being emitted by any existing 2G/3G/4G antennas on the same mast. Also to be specified is the type of antenna-whether a phased array that can perform dynamic concentrated beamforming, or a normal static wide beam antenna.

Council Constitutions generally require all decisions of the Council to be made in accordance with the European Convention on Human Rights (ECHR).

Please note also:

The Public Health Act 1936 regarding nuisance and inevitable injury. In most situations there is no justification for inevitable injury where alternatives are available.

The Equality Act: to ignore the needs of EHS (electrosensitivity) sufferers or expectant mothers in the context of 5G would constitute a breach of the public equality duty under s.149 of the Equality Act.

The Precautionary Principle: The use of the Precautionary Principle is enshrined in European law that will continue past Brexit. The European Environment Agency has recommended its use based on past experience, including failure to act on hazards. The Council of Europe, a wider body than the EU, ditto. In the context of 5G technology, this would indicate a moratorium (halt) on the rollout unless and until it was objectively proved safe. The Principle is defined as follows: “When human activities may lead to morally unacceptable harm that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm.”

The UK Human Rights Act: Danish attorney-at-law Christian F. Jensen has reviewed aspects of compliance with environmental and human rights law:

<https://mdsafetech.files.wordpress.com/2019/07/5g-danish-legal-opinion-jensen-2019.pdf>

The Nuremberg Code: to carry out compulsory mass exposure to pulsed microwave radiation without the fully informed consent of the people affected is in contravention of the Nuremberg Code of Ethics regarding experimentation on humans.

Further information - general

- Fifth Generation (5G) technology is being deployed without independent health or environmental impact assessments and without meaningful public consultation.
- 5G uses both low-frequency radio frequency radiation ('RFR') and high-frequency (millimetre wave) RFR. High-frequency RFR does not travel far and therefore requires small cell antennas every 100-200m to ensure full coverage. Antennas will be mounted on lamp posts, traffic lights, public buildings etc.
- Low-frequency 5G, similar to 4G LTE, will use large masts similar to existing masts, with 5G masts being added to existing masts and new masts also being built.
- High-frequency 5G signals are obstructed by trees. In rural areas, very high masts above the tree line will therefore be required where this technology is to be deployed. More than 400,000 'super-masts' are planned for rural areas.
- In many of these areas there is already full network coverage. The deployment of 5G will entail masts and small cells far in excess of what is necessary to cover 'not spots' where there is poor or no mobile coverage.
- The purported 'benefits' of 5G are unproven. Outcomes of 5G include several deemed undesirable by the public, such as facial surveillance.
- Fibre optic cables to the home would provide a safe and effective alternative to increased wireless radiation emissions and unsightly masts.

- Local authorities should be in a position to work with the public when approving planning permission for further masts. Both local authorities and the public should be in a position to give their informed consent. Currently, this is not the case. This document will provide you with detailed information we consider it crucial for local authorities to have when considering mast applications.
- The UK government currently seeks to remove the need for prior approval for masts by local authorities under certain circumstances. [https://www.gov.uk/government/news/new-laws-to-wipe-out-rural-mobile-not-spots-and-speed-up-rollout-of-next-generation-5g-technology?fbclid=IwAR1wMHQ4d9dPYjCtyjculvISfuv9n8sXNKAFMDCRQrFsf_izEqQ6sucrMxY#:~:text=The%20government%20announced%20on%209,not%20spots%20\(area%20where%20there](https://www.gov.uk/government/news/new-laws-to-wipe-out-rural-mobile-not-spots-and-speed-up-rollout-of-next-generation-5g-technology?fbclid=IwAR1wMHQ4d9dPYjCtyjculvISfuv9n8sXNKAFMDCRQrFsf_izEqQ6sucrMxY#:~:text=The%20government%20announced%20on%209,not%20spots%20(area%20where%20there)
- The deployment of 5G without safety testing in the UK violates over 15 international agreements, treaties and recommendations, including article 7 of the International Covenant on Civil and Political Rights and principle 9 of the Declaration of Helsinki of 1964. (see links as follows: <https://treaties.un.org/doc/publication/unts/volume%20999/volume-999-i-14668-english.pdf> and <https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/>

