In responses to EXA questions, re air quality (3 Schedule 10) HE clearly states "The compliance risk assessment [REP6-020] and [REP7-009] concluded that all areas would be compliant in the Scheme opening year (2024) both with and Without operation of the Scheme..."

yet in responses to Derby FoE, HE states (REP 6-035 Vol 8.84) that "Emissions overall would increase...", "increased emissions from increased traffic on the A38..." The A38 Junctions schemes would not assist the council in achieving compliance, especially as DciC outline the additional and numerous city streets that would be impacted, by increased, or 're-assigned' traffic from the A38 schemes. (REP6-037) There is no indication of how much air pollution would be increased on these streets and the materially worse environmental effects. The meaning of 'increased traffic' = induced traffic AND re-assigned traffic, as well as traffic already using the network

PARAGRAPH CORRECTION Regarding trees, HE states that pollution removal by local trees 'is small' . (8.91) Yet the UK Government acknowledges the massive beneficial effects of air pollution removal by trees, see <a href="https://www.ons.gov.uk/economy/environmentalaccounts/articles/ukairpollutionremovalhowmuchpollutiondoesvegetationremoveinyourarea/2018-07-30">https://www.ons.gov.uk/economy/environmentalaccounts/articles/ukairpollutionremovalhowmuchpollutiondoesvegetationremoveinyourarea/2018-07-30</a>

The calculated approximate beneficial cost to the NHS, of health savings, in the East Midlands, is a saving of £20 per person. Across the East Midlands, and including the main cities of Derby, Leicester, Nottingham, this amounts to over £500 million and outweighs the £270 million cost of the schemes. In any case, the daily 15000 vehicles on the A38 and of course the Kingsway Royal Hospital site, the most polluted site in the East Midlands (FOE ENC 1) acknowledged by HE, would worsen health effects.

HE states that trees would not be planted in 'saturated ground' yet increased rainfall is now the norm and Markeaton Park flooded in February 2020. Groundwater levels throughout the park rose, and, if the scheme were built, this would ensure that further run-off/increased groundwater levels, would drown any planted saplings. For HE to simply state that more would be planted if the trees died, is not a helpful response.

Q38 8.1 HE does not answer the question regarding cumulative carbon dioxide emissions from the planned 100 road schemes across the UK. HE also states that 'it is not considered that any additional CO2 emissions will arise as a result of the Scheme construction works' yet HE admits that 'further investigations' are needed into CO2 and pollutants, at the Kingsway landfill .We ask the Secretary of State to consider the cumulative CO2 figure for the planned 100 road schemes in the UK

REP8 -009 The health effects and benefits to the people who are most impacted by the schemes, in relation to loss of public open space, are those communities who lack public open space and for whom this park is their 'countryside'- the wards of polluted, deprived Sinfin, Osmaston, Normanton, Rosehill and Peartree. Car ownership in many of these wards is low and the junction schemes will have no benefit for them, except to lengthen pedestrian/bus journeys, to increase pollution at the pedestrian crossings, (DMRB LA105) make their journeys to the park longer, having to navigate the increased number of traffic lights, longer pedestrian waiting times at the polluted Markeaton junction, having to stand in a polluted area, to use the footpaths, added to deterioration in access to the park, from the city. Instead of the one crossing for pedestrians, there would be two, again adding to the time spent in a highly polluted area. Children, at the Royal School for the Deaf, families with young children, who do not drive, children walking to the park, and the elderly who do not drive, will be the most affected.

Q43 Re tree biodiversity effects, an oak tree can support over 200 insect species, with related bird species who feed on those. NB State of Nature 2016 - UK is one of the most nature-depleted countries in the world. The UK Government has signed the Global Convention on Biodiversity. In the year of COP26, - now cancelled, though envisaged to be online or some sort of internet presence will be maintained — HE continues to pursue outdated, environmentally destructive and polluting plans.

Homeworking is becoming incredibly efficient, through the terrible means of the coronavirus. Many of the companies now encouraging workers to worker from home, will continue this practice after the coronavirus emergency, as they realise that their overheads reduce and that worker activity at home, increases. In the current coronavirus emergency, people working from home will actually increase their workload, because they are scared to lose their jobs, during/after the coronavirus emergency. They are thus working harder, from home. Companies will see this and realise that it pays them to maintain the work-from-home schemes, which will also lead them to save energy, as the people working from home utilise their own premises, with related energy, food, lighting cost savings. This will have a massive impact on traffic. This eliminates any perceived 'need' for the A38 Junction schemes. Traffic has already been reduced and will remain reduced.

HE cannot continue to evade the effects of the real-life situation on the ground – the coronavirus emergency and the simultaneous climate emergency. At time of writing (2/4/20) the Antarctic is undergoing an unprecedented heatwave. Heavy rain is threatening flooding in Southern China and heavy rainfall is causing flooding in New South Wales, Australia. This, alongside the unprecedented storms and 141% rainfall events visited on the UK in the last few months. There is a reason it is called an emergency. As HE appears unable to understand this, we ask the Secretary

of State to apply reasoning.

Throughout the HE responses to EXA, the detailed design stages keep being mentioned, as though it could all be sorted at a later stage. le 2.6 Traffic management plan to be left to detailed design stage, 3.2 DCic - air quality being left to detailed design stage'. Dcic also recommend formal commentary from DEFRA regarding EXA questions on air quality concerns and 3.3 'Neither HE nor Dcic are responsible for either reporting on, or determining compliance against the EU Directive' HE has been separately commissioned by DFT to undertake air quality compliance work, in relation to the Air Quality National Plan. (3.0 EXA responses Sched 10) This is not yet complete. Effects on the 1000s of pedestrian movements on the Kingsway and Markeaton junctions, are not complete. (DRMB LA105) The 'further investigations' into the contaminated landfill site at Kingsway, are not complete. Excessive carbon dioxide may have been the reason that 4 of the trial pits were stopped, at 1-2meter depth at Kingsway, yet 'further investigations' are to be made.

EXA cannot be assured of the 'mitigation' of flooding effects either, as reliance is being placed on an outdated flood risk assessment from 2013. EXA will have seen the effects on Markeaton Brook 'an **important base flow**' (REP4 10) to the River Derwent, during the site visit. Climatic impacts are now increasing in number and frequency, and HE acknowledges that the schemes will increase the risk of groundwater level rises/run-off. (REP4 10 pg 4) 4.5.6 **"The risk of groundwater flooding is considered to be high."** 

**4.10** The risk of increased surface water run-off, from the scheme, to surrounding areas, is considered to be high" Increased rainfall/groundwater will drown the saplings, planned to replace the destroyed trees/hedgerows/biodiversity. Markeaton Park flooded in February 2020 <a href="https://www.derbytelegraph.co.uk/news/local-news/live-updates-derbyshire-roads-flooded-3867352">https://www.derbytelegraph.co.uk/news/local-news/live-updates-derbyshire-roads-flooded-3867352</a>

The compulsory purchase of the land is not in the public interests, especially those sectors of the public, who do not own cars, do not drive and have no access to cars. They rely on walking or public transport. The A38 junctions schemes will do nothing for pedestrians and in fact curtail their access to the park, through the added widening, increased number of crossings. People who continue to have their public open space standards diminished and their situation ignored, through schemes such as these. Responses from HE, set HE apart, from the effects of the schemes HE visits upon the people of Derby.

The schemes are a massive imbalance, in that public land is effectively being taken from the poorest sectors, usually the sick, disabled, women and those without access to cars, and given to those more affluent. The Secretary of State has a chance to correct that imbalance.

NSPNN People and Communities Para 5.174 'The Secretary of State should not grant consent for development on existing open space, sports and recreational buildings unless there is surplus or excess land or the benefits of the project outweigh the loss of those facilities.'

We have outlined effects on the most deprived sections of society, in the poorest wards, with diminished public open space standards. Markeaton Park is **their** city park. There is no benefit in further destruction of **their** open space.

Exception Test 2B "The development must demonstrate that it provides wider sustainability benefits to the community, that outweigh flood risk"

HE does not answer the Q51 of whether HE is a climate emergency denier or not, repeating that 'the environmental assessment as reported in the Environmental Statement (ES) for the Scheme appropriately assesses Scheme effects upon climate, as well as the effects of climate change on the Scheme.' Refusing to acknowledge the February 141% increased rainfall event as evidence of the climate emergency, would indicate otherwise.

Regarding sustainability benefits the UK Government states the following in the March 2020 'Decarbonising Transport:Setting the Challenge' consultation

 $\underline{https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/876251/decarbonising-transport-setting-the-challenge.pdf$ 

"The Fifth Assessment Report of the Intergovernmental Panel on Climate Change defines co-benefits as being "the positive effects that a policy or measure aimed at one objective might have on other objectives". Co-benefits of positive action on reducing transport emissions include: • Public health benefits through increased active travel and improved air quality; • Improvements to the economy and employment rates through industry and innovation;

 Reduction in inequality where those who generate less noise and air pollution are disproportionally impacted by pollution"

We ask the Secretary of State to take up the challenge, on behalf of communities who are least able.