

**A38 Derby Junctions**  
**TR010022**

**8.91 Applicant's Responses to Information  
or Submissions Received by Deadline 8**

Planning Act 2008  
Rule 8 (1)(k)  
The Infrastructure Planning (Examination Procedure) Rules 2010

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Planning Act 2008

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(Examination Procedure) Rules 2010

**A38 Derby Junctions**  
Development Consent Order 202[ ]

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## **Applicant's Responses to Information or Submissions Received by Deadline 8**

### **Introduction**

This document provides the comments of Highways England (the Applicant) on some of the responses made by Interested Parties to the Planning Inspectorate on Deadline 8, 17 March 2020 in respect of the A38 Derby Junctions scheme (the Scheme) Development Consent Order (DCO) application. It also includes responses to some additional submissions made after deadline 8 and accepted at the discretion of the Examining Authority.

The Applicant has sought to provide comments where it appeared to be helpful to the Examination to do so, for instance where a response includes a request for further information or clarification from the Applicant or where the Applicant consider that it would be appropriate for the Examining Authority (ExA) to have the Applicant's comments on a matter raised by an Interested Party in its response.

Where an issue raised within a response has been dealt with previously by the Applicant, for instance in the Applicant's own response to a question posed by the ExA or within one of the documents submitted to the Examination, a cross reference to that response or document is provided to avoid unnecessary duplication. The information provided in this document should, therefore, be read in conjunction with the material to which cross references are provided.

The Applicant has not provided comments on every response made by an Interested Party to the questions raised. In some cases, no comments have been provided, for instance, because the response provided a short factual response, it reiterated previously expressed objections in principle to the Scheme or expressions of opinion without supporting evidence, or it simply contradicted the Applicant's previous response to a question without providing additional reasoning.

For the avoidance of doubt, where the Applicant has chosen not to comment on matters raised by Interested Parties this is not an indication that the Applicant agrees with the point or comment raised or opinion expressed in that response.

Source	Comment	Applicant's Response
<b>1) Environment Agency</b>		
AS-057	<p><b>Surface Water Question</b></p> <p>The updated Flood Risk Assessment (FRA) states (Section 4.3.4) that 'The Scheme will not alter any existing watercourses or associated structures, and all proposed works that would alter the footprint of the road would be restricted to areas outside Flood Zone 2.'</p> <p>Based on this our understanding is that no works will be taking place within the fluvial flood zones. From reading through the revised FRA, the question from the inspectors about the high point of the road appears to be related to surface water flooding matters within the FRA (Section 4.6) which will be for the Lead Local Flood Authority and the Applicant to respond to.</p>	Noted and agreed.
	<p><b>Compound Question</b></p> <p>After discussions in ISH4 on this matter, and subsequently responded to by the applicant in their response to deadline 6 (Ref 8.84, Page 123) we now understand that the details of drainage solutions and pollution prevention measures will now be included within the Preliminary Works CEMP. The Environment Agency</p>	Noted and agreed.

Source	Comment	Applicant's Response
	will be happy to review this document at the relevant time.	
<b>Draft Development Consent Order Questions</b>	<p><b>Q2 – Article 3 – Disapplication of legislative provisions</b></p> <p>The Environment Agency are happy with the content of Article 3 save for a proposed amendment it has suggested to the applicant in order to allow the need for a flood risk activity permit to be covered by the protective provisions. The wording is “ In terms of the flood risk activity permit (FRAP) the current wording of the PPs will suffice subject to the following suggested amendment to Article 3” Disapplication of legislative provisions” of the DCO. I would suggest adding 3 (f) “Regulation 12 (requirements for an environmental permit) of the Environmental Permitting (England and Wales) Regulations 2016 in relation to the carrying on of a flood risk activity as defined within Schedule 25 Part 1 Paragraph 3 (1) of the said Regulations”.</p>	<p>Noted – this change has been included in the dDCO. See article 3(f) of the dDCO, submitted by Highways England at D6.</p>
	<p><b>Q3 – Article 4 – Maintenance of drainage works</b></p> <p>The Environment Agency confirms that they are content.</p>	<p>Noted</p>
	<p><b>Q4 – Article 6 – Maintenance of authorised development</b></p> <p>The Environment Agency confirms that they are content.</p>	<p>Noted</p>

Source	Comment	Applicant's Response
	<b>Q13 – Article 20 – Discharge of water to main rivers</b> The Environment Agency are happy to see this wording being included.	Noted
	<b>Q14 – Article 20 – Discharge of water to main rivers</b> The Environment Agency are happy with the ExAs position.	Noted
	<b>Q18 – Requirement 3</b> The Environment Agency are happy to see this wording being included.	Noted
	<b>Q20 – Requirement 5</b> The Environment Agency confirms that they are content.	Noted
	<b>Q26 – Schedule 9</b> The Environment Agency are happy that our protected provisions are being included within the draft DCO.	Noted
<b>2) Anne Morgan</b>		
AS-058	<b>Water environment</b> The Local Flood Authority have raised concerns about the secant walls' disruption of the flows of ground water in the underpass of Markeaton island that could cause back-up of flood risk on Markeaton Park. The amount of	The revised Flood Risk Assessment for Markeaton junction [REP4-010] indicates that the use of secant form of pile construction within the Markeaton cutting will not form a barrier to groundwater flow given that the groundwater flow direction is parallel to the alignment of the underpass. As

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	<p>ground water is also certain to rise if the trees and other vegetation is removed as proposed. Those mature trees abstract water from the ground during their transpiration, carrying as they do millions of leaves. At least 35 trees much larger than the one measured for this research will be removed from the A38 at Markeaton Park. TPO loss Markeaton junction map HE514503</p> <p><math>35 \times 18325 = 641,375\text{kg}</math> of water, which normally has been dispersed throughout the embankment, which has been stabilised by the tree roots, could destabilise the ground. The embankment will be destabilised by</p> <ul style="list-style-type: none"> <li>a) felling of trees and removing roots as necessary for</li> <li>b) digging a trench to divert utilities</li> <li>c) planting mitigation saplings</li> <li>d) periodic inspection of utilities</li> </ul> <p>Will Highways England have to bear the costs if the wet embankment suffered a mud slide or saucering in the years it took the new trees to develop root systems comparable to the ones stabilising it at present?  <i>[research refs included in submission footnotes]</i></p>	<p>such, the Scheme will not increase the risk of groundwater flooding. Derby City Council (DCiC) is now content that the secant form of pile will not impact upon groundwater flow or flood risk as indicated by the signed SoCG <b>[REP7-020]</b>.</p> <p>It is considered that the removal of trees within Markeaton park will not have a significant effect on groundwater levels or groundwater movements, or result in any ground destabilisation. It is noted that the Markeaton junction cutting will not be formed by using an embankment – it will comprise a cutting formed with vertical concrete retaining walls to a maximum depth of approximately 7.6m below existing ground levels, combined with a water excluding reinforced concrete base slab. As such, adjacent tree removal will have no effect on the stability of the cutting, whilst the cutting will not be at risk of mud slides.</p>
	<p><b>Biodiversity</b>  Austropotamobius pallipes live upstream of the Markeaton Lake at Kedleston Hall National Trust lake;</p>	<p>Surveys for white-clawed crayfish have been undertaken - refer to ES Appendices 8.12a/b/c <b>[APP-207]</b>, <b>[APP-208]</b> and <b>[APP-209]</b> as well as ES Chapter 8: Biodiversity <b>[APP-046]</b> and ES Figures 8.30 <b>[APP-121]</b> and 8.31 <b>[APP-122]</b>.</p>



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	<p>these seriously endangered White clawed Crayfish in the lake are on the Natural Environment and Rural Communities Act species list, they are a “Species of principal importance for the purpose of conserving biodiversity” covered under section 41 (England) of the NERC Act (2006) and <b><i>therefore need to be taken into consideration by a public body when performing any of its functions.</i></b></p> <p>The droughts and floods of recent years have further decimated populations in rivers with Special Area Conservation status, making the species even more endangered than it was fifteen years ago.</p> <p>Markeaton Lake is known to house a population of Invasive Non-Native Signal Crayfish. The Signal crayfish carry a fungal disease which is lethal to our native White Clawed Crayfish. Natural England, the Environment Agency, the University of Derby, Nottingham Trent University, student volunteers, Derby City Parks department, Derbyshire Wildlife Trust and the National Trust have been co-operating and last year they trapped more than 2000 of them.</p> <p>It is possible that the noise and especially the vibration of the 3 junction work will cause them to migrate away from Markeaton Park. They can travel some distance overland. Highways England must be asked to watch day</p>	<p>These surveys found no white clawed crayfish in Markeaton Lake, but found American signal crayfish <i>Pacifastacus leniusculus</i> on the western end of Markeaton Lake. It is highly likely that there is a strong correlation between the increasing numbers of signal crayfish (carriers of the well documented crayfish plague <i>Aphanomyces astaci</i>) and the absence of white-clawed crayfish within Markeaton Lake and locations downstream. Whilst Scheme construction activities at Markeaton junction will generate construction noise and vibration, the application of best practicable means (BPM) aims to minimise resultant effects (refer to the Outline Environmental Management Plan (OEMP) [REP6-007]).</p> <p>With regard to noise and vibration effects on crayfish, within ES Chapter 9: Noise and Vibration [APP-047] and the OEMP [REP6-007], there is a commitment to using piling methods which are not a significant sources of vibration.</p> <p>Paragraph 9.10.8 in ES Chapter 9: Noise and Vibration [APP-047] states that:</p> <p><i>‘Piling would be required at the new bridges at each junction and to construct the retaining walls at Markeaton junction. Rotary bored piling is proposed for these works - vibration associated with this type of piling is minimal. Impact or driven piling, which is a potentially significant source of vibration, is not proposed.’</i></p>

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	<p>and night. It will have to obtain a licence from Natural England to intercept any that do seek a quieter life.            It would be unlawful to allow any of them to move upstream to spread the disease to what is one of the last thriving colonies of White clawed crayfish.</p>	<p>OEMP [REP6-007] MW-G9 states that:  <i>'Piling Risk Assessments: Highways England's contractors will undertake environmental risk assessments for piling activities which shall include consideration of the environmental constraints shown on the Environmental Constraints Plan (refer to Appendix A). Highways England's contractors will not use impact or vibratory piling. If piling methods other than rotary bored piling are proposed, before adopting such an approach Highways England must demonstrate that such methods complies with the requirement to adopt Best Practicable Means (BPM) to minimise noise and vibration impacts.'</i></p> <p>Sound and vibration is propagated very poorly from land to water, especially where the ground is loose or gravelly, as per the area of Markeaton Lake. Therefore, there will be very little disturbance to signal crayfish (or other fauna) in Markeaton Lake during the Scheme construction phase. In addition, signal crayfish rarely choose to leave their water body and cross land, rather they seek refuge beneath stones and other refugia within the water body. There are also significant barriers to the upstream movement of signal crayfish beyond Markeaton Lake, including a vertical weir and a stilling pond, both of which are also a significant distance from the A38.</p>

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	<p>The Proposed mitigation has not been shown to have equal environmental value, and is unlikely to show any net gain.</p> <p>The mitigation saplings cannot absorb the same amounts of Carbon dioxide as trees and hedging that grow millions of leaves.</p> <p>Semi-mature disease-resistant Elms are to be planted very close to the newly dug diverted utilities corridor. Won't they be disturbed if the any of the diverted utilities have to be inspected for preventative maintenance or for upgrade or repair?</p> <p>If one of the utilities in that corridor needs the repair when one of the trees turned into a totem pole there is successfully used as maternity bat roost, what a dilemma as the penalties per bat disturbed clash against penalties for loss of the service of that utility.</p>	<p>A wide range of ecological mitigation measures have been integrated into the Scheme design – these are illustrated in the Environmental Masterplans (ES Figures 2.12A and 2.12H) [APP-068]. Such mitigation measures have been defined in consultation with key ecology stakeholders, including the local authorities, Natural England, the Environment Agency and Derbyshire Wildlife Trust. Taking into account the defined mitigation strategy, ES Chapter 8: Biodiversity [APP-046] provides details of the Scheme effects during both construction and operation. This chapter reports a moderate adverse significant effect (at the County or Unitary Authority scale) on the A38 Kingsway Roundabout Local Wildlife Site (LWS) due to complete permanent loss of this LWS. However, there is potential for there to be up to a moderate beneficial significant effect (at the County or Unitary Authority scale) on biodiversity in the medium to long term; particularly on standing water (ponds), running water, foraging and commuting bats, otter, terrestrial invertebrates, aquatic invertebrates and fish.</p> <p>For NSIPs such as the Scheme, there is no explicit requirement to demonstrate no net loss or net gain. Nevertheless, the Scheme has sought to maximise opportunities for enhancement in biodiversity associated with defined mitigation measures.</p>

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		<p>During the development of the Scheme design, Highways England has sought to minimise the loss of existing trees, and where such losses are unavoidable, mitigation planting is proposed as indicated in the Environmental Masterplan figures (ES Figure 2.12A to 2.12H [APP-068]). Land use changes associated with the Scheme have been taken into account by the climate assessment as reported in ES Chapter 14:Climate [APP-052]. It is acknowledged that newly planted trees will take time before they are able to take up as much carbon dioxide as mature trees. This has been taken into account by the carbon impact assessment.</p> <p>With regard to the trees planted in the vicinity of the utilities corridor along the edge of Markeaton Park (including the proposed disease-resistant elms), these will be planted back from the repositioned utilities such that should any future utilities work be needed, the planted trees will not be affected. The same is true of the three totem poles to be formed with felled trees – these too will be set back from the utilities corridor such that any future utilities works will not disturb them.</p>
<p><b>I have avoided new information, taking evidence from the documents in the</b></p>	<p><b>1. The cost / benefit ratio no longer holds true.</b>            Under the present circumstances, the costings of TRO 10022 need a complete reassessment. Highways England has not proved that the Scheme Objective is achieved by these proposals. "Public Accounts: · To be</p>	<p>The costs (and benefits) were converted to 2010 market prices for comparison. Thus, any future price changes, tax rule changes, and inflationary pressures were accounted for in the decision to progress with this transport intervention.</p>

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<p><b>Examination Library, except for the 3 photos at the end, which are my own photos of the results of the previous Highways Agency work on the A38).</b></p>	<p>affordable and represent High Value for Money according to Department for Transport (DfT) appraisal criteria.”            Since the cost estimates were done the UK has left the EU, an event not envisaged at that time.</p>	<p>All government investment decisions are taken on a common basis.</p>
	<p><u>Costs of materials and labour</u>            Materials which will need to be imported, including plants, could soon carry <u>tariffs</u> plus extra administrative costs from <u>Customs checks</u>, and <u>extra fuel</u> used in long queues at the ports, because the Prime Minister is adamant that the UK is to Leave under WTO Deal terms. The 3rd lane in both directions increases the amount of <u>materials</u> required for building the road, plus the amounts needed for mitigating the loss of biodiversity. The Derby City Council and UK government have declared a Climate Emergency. Costs could be incurred dealing with the opposition attracted by felling loved trees, woods and hedges.</p>	<p>Highways England is a government-owned company and does not respond to political commentary.</p>

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	<p><u>Extra cost of imported plants from a short hunt of .gov.uk Brexit preparation</u></p> <p>From a gov.uk site on recent Statutory Instruments for Brexit listing charges for inspection if imported from EU. The numbers are £ sterling, but it is not clear if those prices are for time spent and or per kilo of plant. This is a Customs import list not a tariff. There would be tariffs costs as well.</p> <p>Shrubs, trees (other than cut Christmas trees), other woody nursery plants including forest reproductive material (other than seed) 182.38</p> <p>Bulbs, corms, rhizomes, tubers, intended for planting (other than tubers of potatoes) 205.04</p>	<p>HE cannot comment on import tariffs of specific items.</p>
	<p><u>Labour costs</u></p> <p>CrossRail work is expected to continue for another two years. The Prime Minister has also promised to proceed with HS2 and with building 40 hospitals and millions of houses; that will result in an acute shortage of construction workers, which will lead to their pay having to rise.</p> <p>The job offer for earnings of immigrants has to be £25,600 pa as compared with the current basic pay of construction workers of £18,500pa.</p>	<p>HE is not in a position to comment on the provision of labour throughout the country. Inflationary pressures are included within optimism bias adjustments.</p>

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	<p><u>Time and driver stress</u></p> <p>The scheme was supposed to deliver separation of local traffic from trunk road freight traffic, thus reducing congestion and improving the air quality.</p> <p>Unfortunately that is no longer the case, because to qualify as a "Nationally Significant Infrastructure" the speed limit on the A38 trunk road must be 50mph or above; that gave rise to the perverse need to close the existing alternatives for local traffic junctions at Enfield Road, Brackensdale Avenue, and Raleigh Street, <b>thus forcing more local traffic</b> along Ashbourne Road into Derby and onto the A38/A52 traffic light controlled roundabout.</p> <p>Highways England also want to close the entrance and exits for Eurogarages and McDonalds <b>HGVs are to be added to local traffic not separated from it.</b></p> <p>Highways England want to close the entrance off the A38 to Markeaton Park, so the entrance to Markeaton Park is to be moved, requiring a traffic-light controlled Right Turn Lane in Ashbourne Road. Thus the possibility exists that an extra long low-loader lorry carrying 60ft long rail could be attempting to perform a U-turn left into Eurogarages simultaneously with a wide fairground vehicle turning right into Markeaton Park.</p>	<p>The Scheme will separate north-south movements along the A38 from local movements.</p> <p>The existing A38 to the south of Kingsway roundabout and to the north of Kedleston Road is already operating the 'National Speed Limit' (i.e. 70mph for light vehicles).</p> <p>The closure of Enfield Road, the Brackensdale Avenue link, Raleigh Street link and Ford Lane derives from the need to attach slip roads to the grade separated junctions.</p> <p>A52 Ashbourne Road is the A-maintenance-category signed primary route. A6 Duffield Road is the A-maintenance-category signed primary route. Both of these routes are more appropriate roads (and of a higher standard) to be carrying local traffic flows than the roads that will be closed.</p> <p>The McDonalds and Euro Garage sites are internally configured to provide services to heavy goods vehicles. With the Scheme there will be an egress directly onto the northbound diverge slip road. The design of the signal controlled junction has been configured to accommodate the swept path of standard heavy vehicles into both accesses. A 60ft extra-long low loader is a specialist vehicle and would not usually be refuelled in a public fuel-filling station.</p> <p>One of the main reasons that the Markeaton Junction and the Park Access junctions will be traffic signal controlled is so that controlled pedestrian crossings may be incorporated</p>



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	<p>That does not achieve the Objective “· To improve the safety for all road users” I cannot find Work 16b 16d 16f 16h 22b Works maps but doubt there is a big central island for pedestrians to wait safely at the right-turn traffic light. There are no toilets at that end of Markeaton Park. People including NMUs needing those facilities have to cross to McDonalds. Those pedestrians will have to fit in with the sequence of the traffic lights, they won't be able to fully cross the road in one walk.</p> <p>I cannot find Work 16b 16d 16f 16h 22b Works maps but doubt there is a big central island for pedestrians to wait safely at the right-turn traffic light.</p> <p>Linsig computer model and HE's own TRANSYT computer model do not understand that drivers need to excrete and rest, or that hospitals get more emergency vehicles when roads are icy.</p> <p>The computers are not aware of the interconnected complexity of real life.</p> <p>The City Council often has to <b>deploy a human</b> to manually over-ride the traffic-light computers to keep traffic flowing.</p>	<p>into the design layout. Please refer to the Environmental Statement Chapter 12.1 [APP-226] at Appendix B “Scheme Layout Drawings”.</p> <p>The proposed three traffic-signal-controlled crossings of the A52 Ashbourne Road (two to the west of the roundabout and one to the east) will be a marked improvement upon the existing provision, which has no traffic-signal-controlled crossings of the A52 Ashbourne Road (just a split-into-two-halves zebra crossing on the east side).</p> <p>The Markeaton traffic lights will be connected to DCiC's urban traffic control (UTC) systems.</p>
	<p><u>Social Impact costs</u>            All traffic to the Royal Hospital from East and West has to use the Derby Ring Road. Highways England is not able</p>	<p>The Royal Derby Hospital is accessed from the A516, which is an A-maintenance category road and is signed as a primary route.</p>



Source	Comment	Applicant's Response
	<p>to provide a dedicated passage for emergency vehicles, instead it relies on vehicles moving aside to allow room for ambulances to pass. The width of some vehicles of 2020 makes it impossible for the ambulance get past them; I have seen an ambulance unable to proceed although all the vehicles had moved aside. If people who have had a stroke or heart attack are delivered to hospital quickly they can make a full recovery; if they do not arrive in time they can be left severely disabled needing long term costly Social Care.</p> <p>There is certain to be additional gridlock at the A38 roundabout at the front entrance to the Royal Hospital when Northbound vehicle drivers, aware of the roadworks delays at the Kingsway roundabout, choose to leave at the earlier junctions instead. Highways England has not proved that the Scheme Objectives “· To reduce delays and increase reliability of journeys on the strategic corridor. ”</p> <p>and</p> <p>“· Assist in bringing forward development and regeneration opportunities in the surrounding area and immediately adjacent to the Scheme.” will be achieved.</p>	<p>The Scheme contains no work to this A516 road, and the Scheme will have no effect upon it neither during construction nor in operation.</p> <p>The opinions expressed about additional gridlock are speculative and anecdotal. The evidence from the Applicant's traffic modelling indicates that drivers will remain on the A38 during the construction of the Scheme. This is secured through the Traffic Management Plan.</p>
	<p><u>Loss of hard earned reputation and income</u></p>	<p>There are many changes and socio-economic trends in the city that will affect businesses in future years, for good and for bad. The existing shortage of strategic road network</p>

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	<p>The University of Derby, Intu and other retailers in the city centre, and the City Council itself expect a severe long term probably permanent drop in footfall, thus in income, as people and potential students take their business elsewhere. They are not satisfied that the Objective "Facilitate regional development and growth in Derby City and its surrounding areas and increase capacity of the strategic road network to absorb growth." will be achieved.</p> <p>Past experience has shown that any reduction of congestion from highways alteration is short-lived. Local Authority Plans allocated land to build housing outside the boundary of Derby City Council, and several estates have been built. The residents of that housing add thousands more cars as they access the work, schools etc. in other areas of the city, NOT the city centre.</p> <p>The Derby Ring Road had to be built in the 1930s so that people could get from where they lived to the regions of the city where they worked without criss-crossing the city centre, and that continues to be a necessary function of that road. Travel surveys have found that 70% of the vehicles at the most congested times arise from local traffic using the ring road, not local traffic that is crossing the ring road to get into the city centre.</p>	<p>highway capacity in the A38 corridor will not be an inhibition to regional development if the Scheme goes ahead.</p> <p>The Applicant is aware of the impacts of induced trips. This is why the Scheme's appraisal employed a variable demand process as part of the traffic forecasting methodology. Even allowing for the detrimental effects of induced trips, the Scheme was good value for money.</p> <p>Week day travel surveys along the A38 corridor indicated that 45% of vehicle movements travel the whole length of the A38 between a point south of Kingsway junction and a point north of Little Eaton junction.</p> <p>With regard to air quality, the air quality effects of the Scheme have been investigated and reported in ES Chapter 5: Air Quality [<b>APP-043</b>]. This indicates that overall, operation of the Scheme is expected to result in a slight improvement in local air quality at properties within the study area as a greater number of properties are expected to have an improvement rather than a deterioration in air quality in the opening year. With the Scheme in operation, the majority of traffic using the A38 will be able to travel through the three grade separated Scheme junctions without stopping which will reduce congestion in these three areas. The air quality at locations in the vicinity of the Scheme, including footpaths, will achieve all air quality objectives and limit values in the Scheme's opening year</p>

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	<b>Benefits NONE Congestion will not be reduced, Air Quality will not improve.</b>	(2024). The air quality criteria have been set to protect the most vulnerable members of society which includes children and the elderly.
	Previous experience of Highways England funding does not give confidence that the government would allow them to ring fence money for the costs of clearing drains that become the responsibility of Derby City Council. <i>[provided 3 photographs of Markeaton Culvert to illustrate point]</i>	HE is assured that money for the Scheme is ring fenced in the RIS2 announcement on 11 March. Agreement with local councils about operating arrangements will be secured through the detailed design process.
<b>3) Derby &amp; South Derbyshire Friends of the Earth</b>		
REP8-009	As with the climate emergency, HE appears to have been overtaken by events. The current and future coronavirus emergency takes precedent over saving a few minutes on vehicular journeys. The growing impact of home-working, now finally being implemented and which will be continued for many years, swerves the outdated traffic forecasts and negates any perceived 'need' for the schemes. We ask the Secretary of State to consider the beneficial effects of £227 million (estimated cost of the schemes) being transferred to the National Health Service.	This comment is for the Secretary of State not Highways England
	We disagree completely with all of HE responses, outdated forecasts, claimed flood risk estimates, oft-	The Environmental Statement (ES) as published with the DCO application provides an objective assessment of the

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	<p>repeated claims of sustainability and consider that HE is insulting Derby people living in the polluted, deprived city wards lacking in public open space, 'remote from the scheme', who frequent Markeaton Park and whose health benefits are ignored, during the 'consideration' of this scheme.</p>	<p>Scheme's effects upon the surrounding environment. It is noted that the flood risk assessments (FRAs) and defined mitigation measures have been reviewed and accepted by the applicable local regulators and have been accepted as indicating that the Scheme will not increase flood risks – refer to the signed Statements of Common Ground (SoCG) with the Environment Agency [REP5-008], DCiC [REP7-020], DCC [REP6-010] and EBC [REP1-008].</p> <p>With regard to the loss of public open space at Markeaton Park, replacement land will be provided as part of the Scheme proposals which will be formally provided as Public Open Space land. The replacement land provided will ensure there is no net loss of open space land as a result of the Scheme and as such is also considered to be of equal standing in qualitative terms to the land being lost. Further information is provided in Chapter 5 of the Planning Statement [APP-252]. The potential health effects of the Scheme have been considered and assessed – refer to ES Chapter 12: People and Communities [APP-050]. The health assessment considers access to open and natural spaces as a determinant of human health. The assessment indicates that during Scheme operation there will be a range of long term benefits with regard to human health determinants, namely improved access to local healthcare services, improved connectivity to areas of public open space, improved local air quality, increased opportunities</p>

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		<p>for active travel, improved access to work and training, and improved social cohesion and lifetime neighbourhoods. The signed SoCG) with DCiC [REP7-020], DCC [REP6-010] and EBC [REP1-008] all indicate that the applicable local authorities are content that the Scheme will adopt adequate measures (as detailed in the OEMP [REP6-007]) to avoid, reduce and mitigate potential health effects. The health benefits of open space have thus not been ignored.</p>
	<p>Over 100 current trees/scrubland/hedges provide a valuable buffer zone, oxygen and absorption of air pollution; the benefits of which have not been considered, at all, especially to vehicle drivers and 'driver stress'.            500 tiny replacement saplings will drown, in future increased rainfall events. Before they drown, they will be unable to absorb as much carbon/water/pollution, as the current tree cover.</p>	<p>During the development of the Scheme's design, HE has sought to minimise the loss of existing trees, include trees in Markeaton Park, and where such losses are unavoidable, mitigation planting is proposed as indicated in the Environmental Masterplans (ES Figures 2.12C and 2.12D [APP-068]). With regard to replacement tree planting in Markeaton Park, HE will deliver a landscape design that results in a net increase in trees. Such planting will maintain the tree buffer between the new A38 and the park. It is noted that during Scheme operation, traffic will be flowing via the new junction underpass, and the reduction in congestion will have a beneficial effect on driver stress – refer to ES Chapter 12: People and Communities [APP-050].            At a national level across the UK, trees are important in removing air pollutants but at a local level, the removal of pollution by deposition and subsequent decrease in</p>

Source	Comment	Applicant's Response
		<p>concentrations is small. As detailed above, with regard to replacement tree planting in Markeaton Park, HE will deliver a landscape design that results in a net increase in trees and that such planting will maintain the tree buffer between the new A38 and the park and any benefits that it provides. No significant changes in air quality are, therefore, expected as a result of this.</p> <p>Tree planting in Markeaton Park will be undertaken in locations that are suitable for planting (e.g. not in saturated ground). In addition, Requirement 6 of the dDCO <b>[REP8-006]</b> states that <i>“Any tree or shrub planted as part of the landscaping scheme that, within a period of 5 years after planting, is removed, dies or becomes, in the opinion of the relevant planning authority, seriously damaged or diseased, must be replaced in the first available planting season with a specimen of the same species and size as that originally planted”</i>.</p> <p>It is acknowledged that newly planted trees will take time before they are able to take up as much carbon dioxide as mature trees. This has been taken into account by the carbon impact assessment as reported in ES Chapter 14:Climate <b>[APP-052]</b>.</p>
	<p>Q38 HE keep stating, throughout responses, that carbon emissions are 'not deemed to be significant in context of current carbon budgets', they must be writing this in each</p>	<p>The greenhouse gas (GHG) impact assessment as presented in the ES Chapter 14: Climate <b>[APP-052]</b> assesses the variation in operational CO<sub>2</sub>e impact of the</p>

Source	Comment	Applicant's Response
	<p>of the supporting documents for the other 100 UK road schemes, whilst omitting to mention the cumulative effects of over 100 UK road schemes. What is the total CO2 tonnage for all of these? (NB include the CO2 and methane tonnages from uncapping Kingsway landfill)</p>	<p>Scheme on the affected road network and thus not the Scheme in isolation. This includes an appraisal of the wider geographical area to understand the changes in traffic flow patterns as a result of the Scheme. Traffic flows were modelled over a large area that included all of Derby, the M1 to the east, the A50 to the south and M1 junction 28 to the north (refer to Figure 3.1 in Transport Assessment Report [APP-254]) so that increases and decreases in flows across the traffic model study area could be assessed. Traffic flows beyond this area will not change.</p> <p>The assessment as set out in ES Chapter 14: Climate [APP-052] demonstrates that the Scheme's GHG impact as a proportion of current UK carbon budgets is negligible, such that it can be considered to be immaterial. It is acknowledged that current carbon budgets are based on the UK meeting a carbon target of 80% reduction on 1990 levels by 2050. Consideration has been made of the potential impact of the Scheme against the updated net zero GHG target by 2050 and Highways England does not consider that this gives cause to alter the assessment findings – refer to HE response to the ExA first written questions (question 2.1 in [REP1-005]).</p> <p>Further, DfT has confirmed that the programme of schemes described in the Roads Investment Strategy (RIS) 1 have</p>

Source	Comment	Applicant's Response
		<p>been assessed and included in the UK Government's carbon budgets.</p> <p>Under these circumstances it is not considered that the combined CO<sub>2</sub>e impact of the RIS1 schemes will compromise UK's ability to meet its carbon reduction targets.</p> <p>The Scheme will require excavations through a former landfilled area in order to construct the link road from Kingsway junction to Kingsway Park Close. The former landfill is not capped, whilst there is also passive landfill gas venting system covering parts of the former landfill site. Given that the landfill area is currently uncapped and that there is a passive landfill gas venting system, it is not considered that any additional CO<sub>2</sub> emissions will arise as a result of the Scheme construction works.</p>
	<p>Q39 There are large disconnects between various HE claims. For example, in responses to Derby Friends of the Earth (REP6-035, Vol 18.84) the following statements are made, re Stafford St "With operation of the scheme, improvements in air quality are also expected in Stafford St" and "operation of the scheme is also expected to reduce traffic flows in Stafford St and this will be beneficial for air quality"</p>	<p>There are no disconnects as suggested. Traffic flows will decrease in Stafford Street with operation of the Scheme. The emissions referred to in para. 5.10.62 of ES Chapter 5: Air Quality [APP-043] relate to the whole of the affected road network, not just Stafford Street, so some roads will have an increase in traffic flows whilst others, such as Stafford Street, will have a decrease in traffic flows. NO<sub>2</sub> exceedances of the limit value are predicted during Scheme construction on some footpaths adjacent to the A38 both with and without the Scheme, however, if the Scheme</p>



Source	Comment	Applicant's Response
	<p>However, answering Q24 (REP6-025) "as detailed in ES para. 5.10.62 of ES Chapter 5: Air Quality [APP-043], reduced NOx and PM10 emissions are expected in 2024 both with and <b>without</b> the Scheme as compared with the baseline (2015)." HE 8.86 Supplement to Air Quality Assessment Risk, Table 1 clearly shows NO2 limit value exceedances (see also National Friends of the Earth evidence, pg 4, Derby Friends of the Earth HE Response, 3 A38)</p>	<p>makes the exceedance worse, then these footpaths will be diverted.</p>
	<p>Q40 "Traffic flows on the A38 will increase slightly" At the Feb 18th inquiry, on oral tapes HE clearly states an extra 15000 vehicles daily onto the A38. How is that a 'slight increase'? (NB in REP 6-027 DciC details the 1000s of extra induced car journeys on other roads, impacted by the A38 schemes. There is no indication of the ensuing pollution, on those roads)</p>	<p>In [REP 6-027], at their response 3e), DCiC is not referring to "induced car journeys" but to re-assigned (i.e. re-routed) journeys. This is not the same thing. An induced car journey is a new trip on the highway network, whereas a re-assigned journey implies a compensating (beneficial) reduction in traffic flow elsewhere on the road network.</p> <p>It is consistent to say that there will be a slight increase in induced trips and a large increase in the re-assigned journeys attracted into the A38 corridor.</p> <p>The air quality assessment reported in the ES Chapter 5: Air Quality [APP-043] considered air quality effects across a wide geographical area taking account of changes in traffic flow patterns as a result of the Scheme. This assessment included properties close to the A38. Traffic flows were modelled over a large area that included all of Derby, the</p>

Source	Comment	Applicant's Response
		<p>M1 to the east, the A50 to the south and M1 junction 28 to the north (refer to Figure 3.1 in Transport Assessment Report [APP-254]) so that increases and decreases in flows across the traffic model study area could be assessed (noting that traffic flows take account of proposed future developments). Thus the air quality assessment considers potential air quality across the whole network where traffic flow changes would occur as a result of the Scheme.</p>
	<p>Q41 There are no pedestrian surveys for Mackworth Rd. Re saving a predicted 1,396 personal injury collisions over a period of 60 years, was such an estimate also made for the A6 Bypass inquiry, after which the constructed A6 bypass traffic killed a boy, so that just 28 seconds of car journey times could be saved?</p>	<p>The Scheme will attract traffic flows away from Mackworth Road, which will be a benefit.</p> <p>The savings in personal injury collisions were appraised over a wide area of the highway network. The calculation is reported in the Transport Assessment [REP3-005] at Section 5; the predicted collision and casualty savings are detailed in Table 5.6.</p> <p>It is a regret that approximately 28,000 people are killed or seriously injured each year on roads in Great Britain. The road safety appraisal indicates that the Scheme will reduce this number by 143 over 60-years.</p>
	<p>Q42 In response to FOE (REP6 035, Vol 18.84) re Stafford St "NO2 concentrations will be within the limit value both with and WITHOUT the scheme" Therefore, there is no clear benefit of the scheme</p>	<p>Annual mean nitrogen dioxide (NO<sub>2</sub>) concentrations currently exceed the NO<sub>2</sub> objective and limit value in Stafford Street. Air quality on Stafford Street (which is located remote from the Scheme) is the responsibility of</p>

Source	Comment	Applicant's Response
		<p>DCiC – due to such non-compliance issues DCiC is implementing traffic management measures to reduce traffic flows and improve air quality in Stafford Street as part of their Air Quality Action Plan. Whilst the Scheme does not aim to improve air quality on Stafford Street, the Scheme has been shown to reduce traffic flows in Stafford St and this will be beneficial for air quality. As such, FOE are correct in that during Scheme operation NO<sub>2</sub> concentrations will be within the limit value both with and without the Scheme – refer to ES Chapter 5: Air Quality [APP-043] for further details.</p> <p>With regard to Scheme benefits, Highways England wish to draw attention to the following significant benefits that the Scheme would deliver including (but not limited to):</p> <ul style="list-style-type: none"> <li>• Separation of conflicting local and strategic traffic movements;</li> <li>• Addressing a significant problem of traffic congestion;</li> <li>• Building capacity into the network;</li> <li>• Contribution to supporting growth in Derby and the surrounding areas;</li> <li>• Journey time benefits which would see time saving derived from grade separation accumulated across all three junctions that would improve the average journey</li> </ul>

Source	Comment	Applicant's Response
		<p>time for all vehicles travelling through on the A38 trunk road;</p> <ul style="list-style-type: none"> <li>• New pedestrian and/or cycle links;</li> <li>• Improvements in traffic safety for all users including vehicles, cyclists and local residents.</li> </ul>
	<p>Q43 Biodiversity – 'mitigation' claims take no account of the destruction being wrought by cumulative schemes such as HS2 and over 100 planned UK road schemes. The 'adverse effect' on the Kingsway roundabout LWS, is the complete loss of the wildlife site.</p> <p>The impacts on Markeaton Park and Little Eaton biodiversity are staggering and the many sites and species to be destroyed, or habitat to be ruined, cannot be replaced. This is acknowledged and the extinction of many species is further hastened by such schemes. Amongst other species, the park is now a confirmed otter habitat. Otters were also seen in the city centre, at the back of the council house, until unsustainable development on the riverbanks drove them away. Yet the UK Government has signed the Global Convention on Biodiversity Directive. See State of Nature 2016 <a href="https://www.rspb.org.uk/globalassets/downloads/documents/conservation-projects/state-of-nature/state-of-nature-uk-report-2016.pdf">https://www.rspb.org.uk/globalassets/downloads/documents/conservation-projects/state-of-nature/state-of-nature-uk-report-2016.pdf</a></p>	<p>ES Chapter 15: Assessment of Cumulative Effects [APP-053] considers the potential cumulative effects of the Scheme in associate with other developments in the vicinity of the Scheme (with defined zones of influence (Zol)). This assessment considered a wide range of developments in the Scheme's biodiversity Zol (2km from the Scheme for the biodiversity assessment of statutory nature conservation designations). The assessment did not identify the potential for any cumulative biodiversity effects as associated with the Scheme. The impact of all Highways England schemes is collectively being managed by Highways England via their Biodiversity Plan which states that Highways England must reduce the rate of loss of biodiversity, and that by 2040 it must deliver a net gain in biodiversity.</p> <p>ES Chapter 8: Biodiversity [<b>APP-046</b>] clearly reports the loss of the Kingsway roundabout LWS as a moderate adverse significant effect (at the County or Unitary Authority sale) due to the complete permanent loss of the LWS. To partly mitigate for the loss of the LWS, the Scheme will</p>

Source	Comment	Applicant's Response
		<p>create a species-rich grassland within Markeaton Park (created either through the translocation of top soil from the LWS or planting of a bespoke native seed mix to achieve the same ecological outcome).</p> <p>Highways England dispute the FOE comment that <i>"impacts on Markeaton Park and Little Eaton biodiversity are staggering and the many sites and species to be destroyed, or habitat to be ruined, cannot be replaced"</i>. HE will implement a wide range of ecology mitigation features – these are illustrated in the Environmental Masterplans (ES Figures 2.12A to 2.12H [<b>APP-068</b>]). With these mitigation features, there is potential for the Scheme to have a moderate beneficial significant effect (at the County or Unitary Authority scale) on biodiversity in the medium to long term; particularly on standing water (ponds), running water, foraging and commuting bats, otter, terrestrial invertebrates, aquatic invertebrates and fish. It is noted that with the mitigation proposed, the Scheme will have a non-significant (neutral) effect on the Markeaton Park Local Wildlife Site (LWS) which covers much of the park. No veteran trees within the park, for which the LWS is designated, will be removed. At Little Eaton junction, the provision of badger fencing, and the creation of additional sections of open channel and ecological habitats associated</p>

Source	Comment	Applicant's Response
		<p>with the Dam Brook realignment works have the potential to generate biodiversity gains.</p> <p>With specific regard to otter, otter surveys have been undertaken to support the Scheme ecological impact assessment as reported in ES Chapter 8: Biodiversity [APP-046] – refer to ES Appendices 8.11a/b [APP-205] and [APP-206], plus ES Figures 8.28 and 8.29 [APP-119] and [APP-120]. With the mitigation measures included in the Scheme design, the Scheme is assessed to have a non-significant (neutral) effect on otter in the short to medium term and a potential moderate significant beneficial effect in the long term due to enhancements to Dam Brook at Little Eaton junction.</p>
	<p>Q44. HE response to FOE Q2 – HE seems unable to understand why human rights should be taken into consideration, or are relevant to the scheme. It clearly states in the Paris Agreement that <b>“States have human rights obligations that are relevant to climate change; Parties should respect, promote, and consider those obligations when taking actions to address it; the relevant rights include the right to health, the right to development, and gender equality, and also the rights of those who are most at risk from the effects of climate change; and additional considerations such as intergenerational equity are also relevant.”</b></p>	<p>Highways England recognises the importance of human rights and that these are of relevance to the Scheme. An assessment of human rights is detailed in the Statement of Reasons [REP4-005] and a further update to this position was provided to the Examination at D6 [REP6-024].</p> <p>ES Chapter 14: Climate [APP-052] concluded that carbon emissions are not deemed to be significant in the context of the current UK carbon budgets. The assessment demonstrates that the Scheme's greenhouse gas (GHG) impact as a proportion of total UK carbon emissions is negligible, such that it can be considered to be immaterial. In such circumstances, Highways England has considered</p>

Source	Comment	Applicant's Response
	<p>and "Climate change is a common concern of humankind, parties should consider respective obligations on <b>human rights, the right to health,...of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity'</b></p> <p>Does He consider, in the context of the above and Paris Agreement, that human rights are relevant to the schemes?</p> <p>(see also Q28 3 A38 Markeaton/Kingsway Derby Friends of the Earth)</p>	<p>GHG emissions from the Scheme in the context of the UK's new net zero target set in 2019 and does not consider that this gives cause to alter the assessment findings – refer to HE response to the ExA first written questions (question 2.1 in [REP1-005]). Given these findings, Highways England does not consider that the Scheme effects with regard to climate change and any associated human rights.</p>
	<p>Q45 HE response to FoE – HE did not answer as to whether HE believed there was a climate emergency, or not. Does HE believe there is?</p>	<p>HE is not in a position to comment on wider political issues, but as Highways England is a government-owned company we recognise that we have a role to play in tackling issues as associated with climate change. As indicated in the document Climate Adaptation Risk Assessment Progress Update – 2016, Highways England "<i>recognise that we all have an important part to play in minimising the causes and managing the risks associated with a changing climate. With this in mind, our report focuses on our climate resilience. That is, how we are changing the way we do</i></p>

Source	Comment	Applicant's Response
		<p><i>things and the decisions we make to prepare for the potential effects of climate change”.</i></p> <p>HE is committed to reducing the operational emissions of the road network at a national scale, as well as on an individual infrastructure project scale and to playing a part in the UK meeting the net zero target by 2050. HE is investing in renewable energy technology and feasibility studies across the network to reduce carbon emissions, including renewable energy solar farms to support the energy requirements of road tunnels, and photovoltaic noise barriers to power signage, cameras and roadside detectors. HE is also reducing the emissions of assets and buildings and rolling out improvements to depot efficiencies as part of the depot greening programme, including fitting solar panels and using LED task lighting. In practice, these HE programmes which are being assessed and managed across the strategic road transport network and estate will substantially decrease operational emissions. Highways England monitors greenhouse gases generated by the company and our supply chain. Performance Indicators for carbon dioxide equivalents (a measure of a range of greenhouse gases) associated with Highways England, and carbon dioxide equivalents associated with our supply chain, are recorded and inform improvements.</p>



Source	Comment	Applicant's Response
	<p>Q46 HE response to Q13 – HE has acknowledged that traffic and pollution will be increased with the schemes. “emissions overall would increase” As the full account of the effects of HE schemes - on other roads with induced traffic, for example - have not been evaluated, how can HE claim a 'long term and sustainable benefit to the environment'?</p>	<p>It is thought that this relates to FOE question Q5 rather than Q13 which was related to fuel duty revenues and the claim made that it is in HE's interest to increase the number of car journeys. Our response to Q13 was that Highways England is funded by central government and has no say in fuel duty rate, how it is raised or how this revenue is used. Our response to Q5 stated that <i>“With regard to air quality, the air quality effects of the Scheme have been investigated and reported in ES Chapter 5: Air Quality [APP-043]. Overall, operation of the Scheme is expected to improve air quality slightly with a greater number of properties expected to have an improvement rather than a deterioration. Emissions overall would increase slightly with increased emissions from increased traffic on the A38 but properties tend to be located further from the A38 than from roads within the city. Emissions in future years will be lower than currently as cleaner vehicles penetrate the vehicle fleet so the slight increase in emissions due to the Scheme is offset against a long term trend of decreasing emissions”</i>.</p> <p>The air quality assessment reported in the ES Chapter 5: Air Quality [APP-043] considered air quality effects across a wide geographical area taking account of changes in traffic flow patterns as a result of the Scheme. Traffic flows were modelled over a large area that included all of Derby, the M1 to the east, the A50 to the south and M1 junction 28 to</p>

Source	Comment	Applicant's Response
		<p>the north (refer to Figure 3.1 in Transport Assessment Report [APP-254]) so that increases and decreases in flows across the traffic model study area could be assessed. Traffic flows beyond this area will not change.</p> <p>It is beyond the scope of the Scheme assessment and Examination to evaluate and comment upon the air quality effects of all Highway England schemes, although as detailed in the HE Strategic Business Plan 2015 – 2020 HE <i>“will continue to ensure our activities do not adversely impact the environment and in future will further reduce the impact of our activities to ensure a long term and sustainable benefit to the environment and the communities we serve”</i>.</p>
	<p>Q47 HE response to Q16 -Proposals at Kingsway Junction include wetland habitats, Have calculations been made as to how much methane from the uncapped Kingsway landfill, will be emitted through the water?</p>	<p>As detailed in the HE response to FOE Q16 [REP7-007], the Scheme proposals at Kingsway junction include flood storage areas that will provide wetland habitats. As detailed in the Environmental Masterplan 2.12A [APP-068], two flood storage area/ wetland features will be located adjacent to Bramble Brook on the Kingsway hospital site, whilst one a flood storage area/ wetland feature will be located to the north of the junction positioned between the mainline and the northbound off-slip. None of these flood storage areas/ wetland features are located over areas of former landfilling (refer to ES Figure 10.1 [APP-137]).</p>

Source	Comment	Applicant's Response
		<p>The Scheme will require excavations through a former landfilled area in order to construct the link road from Kingsway junction to Kingsway Park Close. The former landfill is not capped, whilst there is also passive landfill gas venting system covering parts of the former landfill site. Given that the landfill area is currently uncapped and that there is a passive landfill gas venting system, it is not considered that any additional methane or CO<sub>2</sub> emissions will arise as a result of the Scheme.</p>
	<p>Q48 HE response to Q18 – Have the scheme effects on water quality taken account of the increased pollution from uncapping Kingway landfill run-off ? See also FOE Q31, Q32,Q33,Q34; 3 A38</p>	<p>As detailed in the HE response to FOE Q37 <b>[REP8-007]</b>, with regard to runoff from the area of the Scheme to be constructed over the former landfill site at Kingsway junction, namely the link road to the Kingsway Park Close, contaminated material will be excavated and appropriately segregated and treated or disposed of. The Scheme will then be constructed and the associated earthworks formed with acceptable materials. As such, landfill material will not be present at the ground surface. Thus runoff contaminated with landfill material will not be generated. Regardless, runoff from this area will be appropriately collected and controlled by the highway drainage system. Thus there will be no increase in runoff pollution in this location.</p>
	<p>Q49 HE response to Q18 – 'Scheme would have a 'neutral effect on surface water quality" yet the PEIR</p>	<p>As detailed in ES Chapter 10: Geology and Soils <b>[APP-048]</b>, the Detailed Quantitative Risk Assessments (DQRA)</p>

Source	Comment	Applicant's Response
	<p>(Human Health Risk Assessment 9.5.32) clearly states a risk from chromium hexavalent, copper, cyanide, lead, nickel, zinc and ammoniacal nitrogen at Kingsway Junction. How can this be a 'neutral effect'?</p>	<p>undertaken for Kingsway junction indicated potential risks to controlled waters from hexavalent chromium, copper, cyanide, lead, nickel, zinc and ammoniacal nitrogen. This was based on risks to freshwater ecosystems. This risk was related to the presence of existing materials in the ground and not risks as associated with the Scheme. A further DQRA has been carried out [REP3-020] which indicates that the theoretical risk from dissolved metals is likely to be influenced by naturally occurring low-level concentrations derived from the strata mineralogy. Therefore, it is considered that there is a very low risk to the identified receptors from the presence of dissolved metal concentrations recorded in a very small number of samples at each of the three junctions. The Environment Agency has reviewed the information provided and accepted these findings - refer to the signed SoCG with the EA [REP5-008].</p> <p>With regard to Scheme effects on soil and groundwater contamination and impacts upon freshwater ecosystems at Kingsway junction, with the implementation of the mitigation measures as defined in Section 10.9, ES Chapter 10: Geology and Soils [APP-048] (as transposed into the OEMP [REP6-007]) effects would be no more than minor adverse.</p> <p>The signed SoCG with the Environment Agency [REP5-008], DCiC [REP7-020], DCC [REP6-010] and EBC [REP1-</p>

Source	Comment	Applicant's Response
		<p><b>008]</b> indicate that the applicable regulators are content that the Scheme will adopt adequate measures (as detailed in the OEMP [<b>REP6-007</b>]) to appropriately control potential impacts associated with contaminated materials, including impacts upon controlled waters.</p>
	<p>Q50 HE response to Q19 – The response does not make sense as it is illogical to claim that there will be a betterment, or mitigation, when, for example, the replacement 'mitigation' saplings will not carry out the same functions, produce as much oxygen, absorb as much carbon, alleviate pollution/particulates, or absorb as much rain/floodwater, as the trees/environment to be destroyed. HE has stated that the scheme would impact on flood storage and result in the loss of some River Derwent floodplain. As both HE and EA have previously been wrong about climate change - storms in Nov19, Jan and Feb 20 and HE statement on the impacts on roads, of increased rainfall/climate change - and Government guidance on this is to be revised shortly, how can HE claim that 'the scheme will not increase flood risk'?</p>	<p>The response to FOE Q19 [<b>REP7-007</b>] highlighted that with regard to the Flood Risk Assessment (FRAs) (refer to ES Appendices 13.2A [<b>REP4-009</b>], 13.2B [<b>REP4-010</b>] and 13.2C [<b>APP-231</b>]) and the Road Drainage Strategy [<b>APP-234</b>], the Scheme is required to mitigate against any increases in flood risk (both now and in the future taking account of climate change) that result from the Scheme itself. The FRAs and the Road Drainage Strategy [<b>APP-234</b>] demonstrate that this has been done, and that betterment is provided where possible. It is noted that the removal of mature trees will have negligible impact on flood risk, and that tree planting is not being provided as a flood mitigation measure.</p> <p>We disagree with the comment that HE has been wrong about climate change – single events or monthly rainfall figures cannot be used as evidence to imply under-accounting for climate change impacts. There will always be variation in rainfall total at a range of time intervals; the climate change allowances applied by the FRAs account for that variation and reflect the long-term predicted trend</p>

Source	Comment	Applicant's Response
		<p>based on climate models for future emissions scenarios only. Ultimately, the climate change allowances applied are as per latest guidance and reflect the expected average impacts on rainfall intensity. They do not and ultimately cannot predict the variability associated with specific events or series of events at varying temporal scales.</p> <p>In terms of betterment, the FRA for Kingsway junction [REP4-009] indicates that the Scheme will have a benefit on downstream flood risk for Derby, although these benefits are likely to only be seen during extreme events. With regard to the highway drainage design, this system will involve the collection, attenuation and treatment of some road discharges that currently discharge directly into receiving waterbodies in an uncontrolled manner – in such cases there would be betterment (e.g. discharges into Mill Pond at Markeaton junction).</p> <p>HE considers that the flood risk mitigation proposals included in the Scheme design are wholly appropriate, as are the associated flood risk assessments and reporting. The FRAs and the Road Drainage Strategy have been reviewed by the applicable regulators and have been accepted as indicating that the Scheme will not increase flood risk. Refer to the signed SoCG with the Environment Agency [REP5-008], DCiC [REP7-020], DCC [REP6-010] and EBC [REP1-008].</p>

Source	Comment	Applicant's Response
	<p>Q51 HE response to REP6 – 036 HE claims 'resilience against both <b>gradual</b> climate change and the risks associated with an increased frequency of severe weather events' The 40-50% increased rainfall events catered for, are too low (see previous Qs) and the Environment Agency statement about the February 141% rainfall event being 141% higher than average February rainfall was clear, their own responses belie the above claim;</p> <p><b>(REP4 10 pg 4) 4.5.6 “The risk of groundwater flooding is considered to be high.”</b></p> <p><b>4.10 The risk of increased surface water run-off, from the scheme, to surrounding areas, is considered to be high”</b></p> <p>HE claims '<b>gradual</b> climate change' despite the recent UK storms and increasing rainfall, showing that tipping point has already been passed.</p> <p>Can HE demonstrate that HE is not a climate denier?</p>	<p>HE response to REP6-036 states: <i>“ES Chapter 14: Climate [APP-052] presents an assessment of the climate change impacts on the Scheme. Climate change projections for the East Midlands were assessed under the UKCP18 High Emissions Scenario, 50% probability level to 2080 and used to generate estimates for the likelihood of a climate impacts and the consequence of an impact during the operational phases of the Scheme. The assessment included all infrastructure and assets associated with the Scheme and assessed resilience against both gradual climate change and the risks associated with an increased frequency of severe weather events. The outcome of the assessment of climate change impacts on the Scheme was identified as not significant”</i>. This response remains unchanged.</p> <p>Highways England also considers that the Environment Agency commentary as reported in the local press about rainfall in February 2020 being 141% higher than average means 41% more than the long-term average, not a 141% increase. The figure provided is a snapshot for one month in one year and cannot be readily used as evidence to imply under-accounting for climate change impacts reported in the Flood Risk Assessments (FRAs) undertaken for the Scheme (refer to ES Appendices 13.2A [REP4-009], 13.2B [REP4-010] and 13.2C [APP-231]). These FRAs report the Scheme effects on flooding, and where necessary proposed</p>

Source	Comment	Applicant's Response
		<p>appropriate flood risk mitigation measures that have been integrated into the Scheme design. HE considers that the flood mitigation proposals included in the Scheme design are wholly appropriate, as are the associated flood risk assessments and reporting. It is also noted that the mitigation and assessments undertaken have been reviewed and accepted by the local authorities and the Environment Agency as applicable. Refer to the signed SoCG with the Environment Agency [REP5-008], DCiC [REP7-020], DCC [REP6-010] and EBC [REP1-008].</p> <p>Highways England is a government-owned company and recognises that it has a role to play in tackling issues as associated with climate change. As indicated in the document Climate Adaptation Risk Assessment Progress Update – 2016, Highways England <i>“recognise that we all have an important part to play in minimising the causes and managing the risks associated with a changing climate. With this in mind, our report focuses on our climate resilience. That is, how we are changing the way we do things and the decisions we make to prepare for the potential effects of climate change”</i>. As such, 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.</p>