

Principal Areas of Disagreement Summary Statement

Lower Thames Crossing – TR010032

SHORNE PARISH COUNCIL

Number	Principal Issue in Question	SoCG reference	The brief concern held by SHORNE PARISH COUNCIL which will be reported on in full in WR / LIR	What needs to; change, or be included, or amended so as to overcome the disagreement	Likelihood of the concern being addressed during Examination
1	Project Objectives – need review	2.1.1 2.1.2	<p>Objectives need to match and address the actual and most important problems at the Dartford Crossing that need solving not just a select few. The biggest problem (inexplicably omitted as an objective) is excessive south-to-north traffic volumes and inadequate flow (and pollution consequences). Objectives appear to have been chosen to ensure “Option C” selection rather than according to overall transport needs.</p> <p>Economic improvement cannot be a hard objective as delivery is not assured.</p> <p>The immediate area around the proposed LTC crossing south of the Thames will receive no benefits only deteriorations. The Project does not directly help the very deprived areas nearby in North Kent (Grain and Sheppey).</p>	<p>Go back to basics on what are all the problems at Dartford that need solving and review against these what the LTC east of Gravesend will actually deliver in practice, taking into account negative outcomes.</p> <p>Consider whether a solution at Dartford (such as second bridge and/or Option A14 long tunnel) and/or another location further east would lead to better outcomes overall.</p> <p>Confine discussion to purely practical matters of direct transport improvements and economic balance of benefits and disbenefits and only in the immediate location of the new crossing.</p>	<p><u>For all the boxes below:</u></p> <p>These issues can be addressed and resolved by NH during the examination stage, under directive guidance where needed, with reasonable likelihood.</p> <p>Please note that the Parish Council submissions and responses are undertaken by Councillors who are volunteers with no secretarial assistance and a lot of other work, we will do what we can to comply with DCO process requirements.</p> <p>These identified items and comments are based largely on our current SoCG and may not fully incorporate information/corrections from NH’s latest documents.</p>

2	Project Objectives – need to be delivered, with no negative outcomes	2.1.4 2.1.5 2.1.6	<p>Project will not deliver adequate or long-term improvement at Dartford. Another bridge is anyway needed at the Dartford Crossing, possibly together with the “A14” long tunnel option bypassing Dartford, in order to complete the M25.</p> <p>Provision of Resilience is an Objective but has been little discussed so far. It is not clear how it can be delivered without additional costly enabling works and/or gridlocking the whole of north-west Kent in the process as the two crossings are too near each other.</p> <p>Project not sufficiently connected to the reality of existing and predicted background traffic levels in north-west Kent, which the Project will worsen by pulling in additional traffic. Need to consider what success will look like, and the opposite (failure).</p>	<p>Evaluate value for money based only on direct costs, excluding theoretical aspects that are not guaranteed outcomes.</p> <p>Provide significant quantity of robust modelling showing the impact of all scenarios of resilience (from planned closures through to major accidents) on the LTC receiving area.</p> <p>Show how traffic will migrate between routes and the local impacts.</p> <p>Identify and incorporate costs and plans for required enabling works to ensure that resilience can be delivered.</p> <p>Robustly consider the negative outcomes from increased traffic being pulled onto the A2 and M2. Consider what negative aspects would be game-changers or show-stoppers leading to need for abandonment of the proposals.</p>	
3	Project Cost – value for money, excluding other required costs, other economic issues	2.1.3 2.1.65 2.1.54	Question whether the Project is affordable and represents value for money: Estimated costs have so far increased by 50% - the current figures of between 5.2 to 9 £Billion have a very wide range which conveys considerable uncertainty as to the final cost.	Identify and include all costs of all essential enabling and protective works even if outside the immediate build area.	

			<p>Omitting other required enabling costs such as improvements to the A229 and its junctions with the M2 and M20, these are still costs of the Project. All enabling and predictable consequential costs should be part of the Project and included in the financial evaluation.</p> <p>Negative economic impact locally from increased journey times, traffic congestion and gridlock also need to be factored into calculations.</p> <p>Concern about possibly using variable charging to manipulate routes taken by traffic that would not otherwise choose to use the A2/M2 and connection routes from the M20.</p>		
4	Route Selection – flawed process, inadequate review, question validity of location choice, reappraisal needed	2.1.7 2.1.8 2.1.9	<p>The sequential approach discarded potentially better options from proper consideration: Options “D” and “E” were discarded early on but principally over the cost and difficulty of a bridge structure. Once a “tunnel only” solution had been decided, all the options should have been reconsidered in that format, also including hybrids between options D and E connected to M2 J5 (currently being massively reconfigured) via</p>	<p>Review previous processes and early elimination of options as to whether the same choices are valid today when a tunnel-only decision is factored in.</p> <p>Conduct a reverse lookback to confirm proposals are at best location.</p> <p>Explore the economic disbenefits of the Option C location versus solutions located solely at Dartford or Options D and E hybrid routes</p>	

			<p>the A249 and M2 junction 1 via the A289. This would connect Sheppey to Grain and then to Essex..</p> <p>An up-to-date reappraisal should be published with the DCO: There needs to be assurance that "Option C" remains the best and best value, most viable route.</p> <p>Crossings implementation should have started furthest east: If the objectives are reviewed looking at which the Project can and can't deliver, it becomes obvious that there is little point (and there is economic disbenefit) to unsustainably bringing strategic traffic past the Medway Towns via the M2 when it could have crossed the Thames much further east.</p>	<p>which have not been properly considered.</p>	
5	<p>Consultations – excessive number, changes unclear, inadequate access to documents, misleading data re-presentations</p>	<p>2.1.10 2.1.11 2.1.12</p>	<p>Too many Consultations: There have been six Consultations since 2017, it has been very difficult to read all the documents and respond. The Public seem to have consultation fatigue shown by response numbers having sequentially fallen.</p> <p>Information provided, and therefore comments that had to be made were often very similar, other times there were very large differences.</p>	<p>Highlight future changes more clearly by making "tracked changes" or other highlighted versions available, to show what has been taken out or added, and the reasons.</p> <p>Improve cross referencing and provide hyperlinks to exact documents and pages referenced.</p> <p>Make clear when there is new data or just reformatted old data.</p>	

			<p>Changes were not highlighted so every word had to be read again to detect differences.</p> <p>Data was not always new/updated but re-presented in different formats which was misleading and prevented direct comparisons.</p> <p>Consultation documents had varied availability and ease of access: Getting hold of the documents was sometimes difficult and they were not easy to access or view on computer screens. Cross referencing is extremely difficult as is finding references indicated in National Highways responses.</p>		
6	Consultation conduct – over publicising to skew outcomes, misleading information, published responses highly selected, off the point	2.1.13 2.1.14 2.1.15	<p>Publicizing of Consultations varied greatly, affecting the number and nature of responses elicited: The first Consultation was e-mailed to the entire Dart Charge e- mail list, this skewed the quantity and quality of the responses, whether responders looked at the full documentation or just believed the biased headlines. Subsequently the number of responses has fallen to very low numbers (only 1206 in July 2021).</p> <p>Misleading Consultation information: The first Consultation showed a two lane tunnel, no other structures, a very small A2</p>	<p>Account for these when reviewing past methodology and decision processes and ensure probity of future consultations.</p> <p>Publish all matters raised and not just a limited selection. Ensure that responses answer the actual question raised.</p>	

			<p>junction footprint, narrow emergency access, no side feeder roads etc – these and other aspects were then superseded by very different and greatly expanded proposals. These omissions would have misled responders about the true impact.</p> <p>Not all concerns raised are addressed or given a public response: Some concerns that have been raised by many responders are not addressed or receiving a response. Response documents discuss the most frequently raised concerns but there could be important points raised by only one person, these should be included rather than being edited out and hidden/ignored.</p> <p>Responses in NH response documents are often repetitive pasting and not answering the point raised, they can come over as dismissive of valid concerns.</p>		
7	Lack of Information provision and misleading presentation	2.1.16 2.1.17 2.1.19	<p>Withheld or “Confidential” information, not provided: Not all information needed/requested was provided to the Parish Council. Updated traffic data in particular has been provided by NH to Gravesham Borough Council and Kent County Council</p>	<p>Eliminate secrecy agreements and provide data and other information as requested.</p> <p>Avoid presentations that deliberately disguise disbenefits.</p>	

			<p>under a Confidentiality agreement but not to the Parish Council. This also impacted negatively on possibilities for collaboration. Secrecy agreements should not happen and collaborative working between Authorities with differing responsibilities should be a requirement.</p> <p>“Ward summary” presentation disguises disbenefits: Some data was presented in Ward Summaries, this had disbenefits for the largest Ward south of the river Thames (Shorne, Cobham and Luddesdown) as the adverse impacts of the Project vary greatly within its area, being greater north of the A2 than to its south.</p> <p>Our request that future publications should split the ward along the A2 into north and south sections has been ignored. [SPC information note – The warding arrangements were changed in the recent Electoral Boundary Review, Shorne is now combined into a Ward with Higham. So future publications after May 2023 should consider Shorne and Higham separately.]</p>	<p>Use new warding geography of “Higham and Shorne” ward. But summarise information for Shorne and Higham separately.</p> <p>Collaborative working should be a requirement of the processes.</p>	
8	Design change process can be opaque	2.1.18	Aspects of the proposals have changed without us being able to	Changes must be transparent and always the result of involving	

			<p>understand how or why, this is sometimes connected to Statutory bodies such as Natural England, Areas of Outstanding National Beauty – “stakeholders” who do not consult or communicate with residents and Parish Councils but influence the plans from afar without having or seeking any local knowledge or input. NH sometimes give opinions from these non-representative organisations too great a weight.</p>	<p>Shorne PC in the discussions in order to achieve local input and agreement with outcomes.</p>	
9	<p>Order limits and land take: large and expanding land take, nature of land involved and impacted, opaque processes</p>	<p>2.1.21 2.1.22 2.1.23 2.1.24 2.1.64</p>	<p>After considerable expansion of the order limits (misleadingly small in earliest consultation) and the amount of compensation/mitigation land needed, Shorne Parish now has about one third of its total area affected.</p> <p>The land that the crossing will take is Green Belt, what is supposed to be a strategic gap between built up areas and providing them with green recreational space and clean air. There should be a specific discussion about impact on Green Belt Land (as well as Ancient Woodland, SSSI's, Special Protection Areas, Ramsar Site etc).</p>	<p>No further increase in land take.</p> <p>Expand discussion about impact on Green Belt.</p> <p>Except when impacting viability of businesses/farms as currently existing (excluding theoretical future desired expansion/development) land take should be as close to the line of the LTC as possible.</p> <p>Land take should focus firstly on minimising damage to residents, then businesses/farms.</p>	

			<p>Large loss of productive Agricultural land with severance and threat to farming viability.</p> <p>Also concern that the area is losing (has now lost due to recent closure) its only, and very popular, “Pay and Play” golf course, this is not being re-provided.</p> <p>Selection methods over inclusion/exclusion of some land are opaque and appear to sometimes be unduly influenced by landowner motives, not always aligned or in best interests of the community.</p>		
10	Landscape changes, including Green bridges - width and character	2.1.25 2.1.26 2.1.27	<p>Landscaping should be focused on and primarily to benefit local residents rather than user experience.</p> <p>There is particular unhappiness over the loss of the current extensive A2 wooded central reservation which softens the appearance and masks noise. (Note that plans and photos in currently submitted documents disguise the impact of this loss.)</p> <p>Green Bridges are not wide enough and could be further widened – they should be constructed so that bridge users (including wildlife) do not realise</p>	<p>Increase green bridge width and cut-and-cover to maximum physically possible.</p> <p>Reducing impacts on local residents should be the highest priority in landscaping proposals.</p> <p>Consider again the visual benefits of retaining as much of the A2 wooded central reservation as possible.</p>	

			<p>that they are crossing 18 lanes width of tarmac. They need to be viewed as more than just a bridge structure and expanded using e.g. cut-and-cover, this would increase protection of nearby residents from noise, light and air pollution.</p> <p>We also question the likelihood of anything actually being able to grow in the fumes from traffic using 18 lanes width of tarmac.</p>		
11	<p>Design/structure issues: Local access routes direct to M2 being removed, reduction of M2 to two lanes each way through Gravesend East, sight lines exiting Shorne Ifield Road to Thong Lane, lack of hard shoulders, rat-running prevention, inadequate WCH path proposals</p>	<p>2.1.28 2.1.30 2.1.31 2.1.32 2.1.36</p>	<p>The A2 access route from Shorne eastbound is now onto the northern feeder road. Access from there to the M2, which was in the early plans, was inexplicably removed without discussion. Claims of unsafe merges are rejected as design could be improved to increase merge separation. This access should be reinstated as otherwise there is a long and impractical diversion and the omission encourages rat-running.</p> <p>The width of the M2 destined A2 has been reduced from current four lanes to only two through Gravesend East (and similar westbound), SPC do not believe this will be adequate for traffic volume and bottlenecks will result.</p>	<p>Restore access from Shorne to M2 - claims of safety concerns are rejected, and other concerns such as longer journeys and increased rat-running are just as important considerations.</p> <p>Review number of lanes to be provided on A2/M2 line each way through Gravesend East to provide a practical design.</p> <p>Straighten Thong Lane at junction with Shorne Ifield Road to improve sightlines.</p> <p>Review hard shoulder provision, provide additional WCH bridge just north of the LTC:A2 junction.</p>	

			<p>Sight lines exiting Shorne lfield Road to Thong Lane need improving: The Project works are altering the road layout so that Shorne lfield Road will emerge on the inside of a blind bend with inadequate visibility, this needs to be corrected by revising the alignment of Thong Lane.</p> <p>However the A122 is classified, it is effectively a Smart Motorway with all the well-known associated failings, hard shoulders are needed for safety reasons.</p> <p>Where the proposed layout is likely to result in additional traffic flow and rat running being induced on local residential and unsuitable roads, protective solutions should be integral to/integrated with the Project.</p> <p>New item: Concerns about WCH proposals: Severe severance of routes east-west close to the A2, the proposed replacement for NC177 is not practical and introduces risks to users, an additional WCH bridge just north of the LTC:A2 junction should be considered for addition to the proposals. An off-roadway track should be added where there is a missing section on Shorne lfield Road.</p>		
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12	Increased journey times, traffic light facilitation of junctions and roundabouts	2.1.29 2.1.65 2.1.66	<p>All directions of travel are being made more difficult and indirect, and all journeys will be longer: From Shorne (and Gravesend East) it will be exceedingly difficult to make many journeys, including accessing the most-used railway stations (Ebbsfleet International), supermarkets and shopping centres which all require use of the A2 westbound, with greater risk of compromised journeys due to traffic congestion and gridlock.</p> <p>Several junctions and roundabouts will become much busier, increasing traffic delays in some directions of flow and increasing accident risk. Traffic light facilitation is needed as an integral part of the project.</p>	Impacts on residents lives, and increased journey times and difficulties should be given highest priority in design choices, with facilitation of traffic movements.	
13	Water drainage issues – numerous and significant concerns (including Milton Compound and potential damage to the Thames and Medway Canal)	2.1.34 2.1.35 2.1.42 2.1.43 2.1.49 2.1.67 2.1.91 2.1.101 2.1.103 2.1.104 2.1.105 2.1.106 2.1.108	<p>Considerable concerns over a number of aspects of the plans, particularly over contamination potential and other causes of damage to the North Kent marshes and Ramsar site, and Marine ecology, including:</p> <p>Inadequate water supply could arise from interruption of land drainage routes to marshes (these need confirming), active or accidental dewatering, ground</p>	<p>Significant concerns about pollution identified, the proposals need review and approval by independent experts and relevant responsible bodies, in order to provide assurance that the proposals are valid.</p> <p>Use data of local rainfall in designing capacity of water storage features.</p>	

			<p>preparation tunnel and Milton Compound (very concerned as this is within the SPA, proposed injection of “grout” is an unproved method), shallow depth of tunnel structures below marshland.</p> <p>Run-off could occur from the chalk stockpiles and if drainage/storage is overwhelmed during peak rainfall – design and capacity must be adequate for local weather maxima.</p> <p>Contaminated drainage proposals cause concerns through use of the “western ditch” (a renaming by NH of the Ramsar Ditch), which is in the Ramsar site, proposed routine discharges to the river Thames, and use of chemical de-icing on vast amounts of tarmac.</p> <p>Also: threats to St Mary’s Church, Chalk; potential damage to the bed and banks of the Thames and Medway Canal; impact on existing lakes and ponds; risk of flooding and need for flood defence enhancement.</p> <p>Along with the above, concerns about the validity of the water surveys as these were done at dry times, and lack of information about water flows across the A226 which might be transected.</p>	<p>Provide further information and assurance about the grout injection process.</p> <p>Address concerns about intended and unintended dewatering.</p> <p>Provide information and assurance that torrential rain will not lead to contaminated run-off.</p> <p>Testing methodology and locations require confirmation of suitability from responsible body. Missing data and survey dates need ground investigation.</p>	
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14	Construction issues – many concerns	2.1.40 2.1.41 2.1.44 2.1.45 2.1.81	<p>Many concerns locally about matters such as methodology and input into liaison with constructors, working hours, nature of compounds and their access routes, nocturnal lighting, noise, what the various compounds are for and how they are accessed.</p> <p>Concern about construction staff large vehicles using residential roads: Many roads locally are narrow and not suitable for increased traffic, staff vehicles should also access compounds through routes within the construction boundary rather than by public/residential roads. Although NH call them “cars” the concern is that staff vehicles will be larger, heavier and more disruptive than what residents would regard as standard private cars.</p> <p>Protection of residents during construction: Tree planting in final position plus protective earth bunds should be put in place at the earliest possible date.</p> <p>Night-time working should be avoided as much as possible, maps of affected areas were not clear.</p>	<p>Understand and address point about increased traffic concerns for all construction traffic.</p> <p>Ensure construction traffic routes are within order limits (and not on existing roads) as much as possible.</p> <p>Minimise bridge closure duration, look at more off-line/altered line construction.</p> <p>Ensure maximal consideration of needs of residents and maximal protection measures.</p>	
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			<p>Summer working hours are too long (06.00 to 23.00). Haul roads are very close to residential locations.</p> <p>Concern for St Mary's Church, Chalk which is very close to the tunnel mouth and could be affected by increased noise and vibration and through nearby dewatering.</p>		
15	Construction – physical issues	2.1.44 2.1.46 2.1.47 2.1.48	<p>Duration of bridge closures (Thong Lane N and S, Brewers Road), if truly unavoidable, not to be done simultaneously – balance over disturbance from night-time working, 24h working should be minimised.</p> <p>Concern any widening of the A226 should be temporary and reversed post construction.</p> <p>Construction HGV's routing via Gravesend East junction cause concern about adding traffic to the roundabouts when there are already queues back onto the A2 itself at peak times.</p> <p>Closures of footpaths and cycle routes, including long distance routes, need to be minimised, access controlled rather than full closure, there must be safe alternative routes already in place.</p>	Reconsider routing via the roundabout, explain and justify why needed.	

16	Traffic volume and noise issues – increase on residential roads, disbelief of noise reduction claims, monitoring and resolution of adverse traffic outcomes	2.1.50 2.1.51 2.1.63	<p>Concerns about noise increase, and traffic increasing on unsuitable, narrow residential roads which can get blocked as no passing places.</p> <p>Claims of future noise reduction seem not credible, especially e.g. versus loss of noise protective mature trees in the A2 central reservation. Reductions are shown to be temporary.</p> <p>There is a plan for monitoring of adverse outcomes which proposes evaluation at 1y and 4y, this is much too long a gap so suggest 1y, 2y, 3y and 5y.</p> <p>Question what measures can and will be taken if predictions are shown to be incorrect, i.e. more traffic, noise and pollution than expected/predicted. How adverse outcomes identified by post-operational monitoring are going to get resolved is not clear. There will be problems where it is not physically possible to widen the roadway, and others where the source of funding is not clear or assured. Funding to resolve consequential operational problems must be assured and resolution expedited.</p>	<p>Traffic data, modelling and predictions need examination by independent experts.</p> <p>KCC are developing what should be a better and more accurate, more locally applicable model.</p>	
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			However, there are also problems that are predictable, and those should be included within the project.		
17	Traffic data and modelling – many concerns about validity and credibility, consequences of incorrect data	2.1.55 2.1.56 2.1.57 2.1.58 2.1.59	<p>Traffic data inputs use old data, and sometimes only partial data, casting doubt on modelling outputs and concern as to how results can possibly be correct or statistically valid.</p> <p>The modelling being used is only said to be valid at regional level yet being applied to a highly individual area. Elsewhere, DfT's own publications warn against use of traffic prediction models.</p> <p>Traffic figure predictions are then "capped" on a regional basis by being modified downwards as growth is not allowed to be predicted to exceed a certain percentage even if the modelling output figure is higher. "Capping" is inappropriate and counterproductive as it pushes the Project further from reality.</p> <p>Both the capped and uncapped figures should be published so that the extent to which traffic levels are being underpredicted is transparent.</p> <p>There are many reasons why traffic levels in North-West Kent</p>	<p>Use new/recent data in an agreed model that operates at local levels.</p> <p>Eliminate statistically non-valid treatments, outputs must be real not imaginary pretence that there is sufficient local capacity.</p> <p>Data presentations and evaluations must explicitly real, it is not to anyone's benefit for the project to be unsuccessful.</p> <p>Traffic data, modelling and predictions need examination by independent experts.</p> <p>KCC are developing what should be a better and more accurate, more locally applicable model.</p>	

			<p>would be higher than the Regional average, e.g. as it is a major growth area and additional housebuilding is continuing. Many of these and other developments/local threats such as London Resort are not being adequately factored in.</p> <p>Concern about how matters such as number of lanes required and road capacity can be predicted with any hope of a successful Project outcome.</p> <p>Presentation of the data in documents is selected to obscure negative impacts while disguising that actual benefits may be lower than desirable.</p> <p>The incorrect traffic data then impacts on the air quality figures (themselves also highly massaged) which are derived from the traffic data, so anticipated pollution and noise impact will also be underestimated. This may explain why non-credible reductions in air pollution are being suggested when traffic volume is patently increasing.</p>		
18	Traffic increase – many concerns	2.1.60 2.1.61 2.1.62	Traffic increases and lack of action to protect residents: Traffic will increase throughout the area on all roads both major and	Further information and assurance needed that identified adverse effects will be addressed and in a rapid timeframe.	

			<p>minor. Consequences are recognised but there are no plans included to address predictable problems, especially those which impact on local residents, from the outset, these should be integrated with project.</p> <p>Traffic in the area is already heavy and often congested. The proposals will make it worse by drawing more traffic into the area. Further increase cannot be supported by the local and wider traffic network in North-West Kent.</p> <p>Suggestions that the Project will lead to traffic reductions on small links such as the A2 west of Gravesend East are not credible as the Project will tend to pull in new traffic travelling by different routes, so cancelling out any putative reductions.</p> <p>Concern about traffic increases on connecting roads between the M20 to the LTC: the A226, A227, A228 (and A229). Although "A" roads, they are not all designed for additional traffic, especially HGV's, often having residential properties close to the roadway. Also problems on other unsuitable local connecting roads caused through rat-running.</p>		
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			<p>The M2 and A289 immediately east of the LTC are already at capacity with frequent jams, the LTC will only make this worse. The suggested solution from NH is to impose lower than standard motorway speed limits, which is not a helpful solution or a successful Project outcome as it will increase journey times for all users including LTC users.</p>		
19	<p>Air pollution – many concerns: interdependence on correct traffic data, use of subjective assessments, overmanipulation of data, not including factors for junctions, long inclines etc, overcomplicated data presentations, assessment criteria for rural areas, Pollution assessment in future years after opening</p>	<p>2.1.70 2.1.69 2.1.71 2.1.72 2.1.73 2.1.78 2.1.79</p>	<p>Interdependence on correct traffic data: As discussed above, there are considerable concerns and doubts over the veracity of the traffic data. However, the same “capped” data provides the input into the air quality predictions - if the traffic data is incorrectly low then so will be the air quality predictions. Predictions use outputs from the traffic modelling and reconvert them into AADT rather than using actual AADT inputs.</p> <p>Some assessments are subjective, i.e. opinion and value judgements rather than being objective assessments based on properly collected and evaluated, well evidenced hard data.</p> <p>Over-manipulation of data: The air quality report is prefaced by</p>	<p>Air pollution data, modelling and predictions need examination by independent experts to provide assurance that proposals are valid.</p>	

			<p>descriptions of a considerable number of ways that the figures have been adjusted, usually downwards, which again casts doubt on the whole exercise. In some instances data for particular major roads was individually adjusted.</p> <p>Predictions that air quality will improve on the A2 immediately west of the LTC (close to the major junction) are not credible as additional traffic will be pulled from eastbound the west to use the LTC, cancelling out any possible reduction through westbound traffic instead taking the LTC.</p> <p>The earliest air quality calculations that were published only related to straight, flat roads. Assurance is needed that the figures factor in large junctions and especially that there is a 2km long, 4% incline slope which HGV's (the heaviest polluters) will have to haul up from the lowest point of the tunnel. Pollution calculations could be underestimated for this reason as well.</p> <p>Data presentation was only at either simple or PhD level, there needs to be an intermediate level of presentation that can be</p>		
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			<p>understood by non-experts with reasonable ability to understand technical information.</p> <p>Appropriate assessment criteria for rural areas with low property numbers: The significant effect criteria assessment considered number of properties, concluding no risk if very few properties were affected, but with low numbers of properties in rural areas, this artificially downplays the problem. E.g. five affected properties may sound insignificant but there is a great difference in impact between 5/1000 compared to 5/5, i.e. if all the properties in a particular low population density area are adversely affected.</p> <p>Assessments were made only for opening year but air pollution related to traffic and traffic volumes are predicted to increase, therefore so will pollution.</p> <p>Arguments that more vehicles will be electric are not really quantifiable and predictable, especially for long-distance HGV's and rural residents, and electric vehicles will still cause pollution of air from tyres and brakes, and noise pollution.</p>		
20	Air pollution – methodology of studies,	2.1.74 2.1.75	Air quality sampling was undertaken mostly using NO2	Air pollution data, modelling and predictions need examination by	

	inadequate sampling locations, creation of new exceedances of regulatory levels, and other deterioration in air quality,	2.1.76	<p>diffusion tubes but these are known to be more unreliable and give lower readings than fixed sampling stations. Therefore the calculations could be also underpredicting for this reason.</p> <p>New point: The bulk of the data used in assessments is from 2016, since when local traffic levels have increased by about 2.5% per annum.</p> <p>Air quality sampling is not being undertaken at locations where people live close to a road for which traffic levels are predicted to rise as a consequence of the project, e.g. the A227 at Meopham and the A228 at Cuxton.</p> <p>It is unclear as to what is the legality of creating new exceedances. New exceedances cannot be justified or offset by reductions 10miles away. If air pollution is being caused by the project then all those locations should be included in the project, it is unacceptable to ignore adverse effects on human health.</p> <p>There are some areas which already have exceedances and these will be made worse by the Project but for unknown reasons</p>	independent experts to provide assurance that proposals are valid.	
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			<p>these locations have not been declared as AQMA's, this should be done and those areas included in the project and have planned actions to reduce pollution.</p> <p>It has been stated that a greater number of residential locations will be newly subjected to bad pollution levels than those who may have their air quality levels improved, which is not a good outcome for the Project.</p>		
21	Air pollution – impact from tunnel ventilation system, impact on local woodlands and parks, other impacted land of value but not SSSI	2.1.80 2.1.77 2.1.68	<p>Concern that particularly bad air will be pushed out of tunnel mouth, without any cleaning, and impact on residential areas due to variable wind direction.</p> <p>Pollution will spread further into the parks and Ancient Woodlands, and further up the tree trunks than is presently the case. There is little point having Country Parks which are then so contaminated that their biodiversity is compromised.</p> <p>The Project does not consider negative impact on all land that will suffer air pollution, e.g. the Parish owns “Crabbles Bottom” which is close to the M2/A289 junction and is to be included in the local National Park proposals but there has been no discussion from NH about impact on our</p>	Further information and assurance needed.	

			land e.g. the ancient productive orchards and meadow.		
22	Mitigation/Compensation and Biodiversity – many concerns: Extent of damage to protected land, meaning of “minimisation”, Nitrogen deposition offset methodology, preservation of existing habitat, Maximisation of hedges and ponds for biodiversity, permanence of compensation and mitigation and NOx offset land, safeguarding against future redevelopment, quality of restoration of land post-works	2.1.83 2.1.89 2.1.88 2.1.87 2.1.90 2.1.86	<p>An objective of the project is to minimise adverse impacts on (health and) the environment but the location chosen is one of maximal damage or threats to Ancient Woodland, SSSI's, SPA's, Ramsar Site, landscape areas and Shorne Woods Country Park (the most visited park in Kent).</p> <p>“Minimise” is a “weasel word” that should be avoided as e.g. damage that is reduced from 100% to 99.9% can be said to have been minimised if all possible reduction measures have been applied yet there is no discernible difference or reduction in the damage caused.</p> <p>Quantitative and qualitative means are needed to identify how much compensation and mitigation and NOx offset land is needed, and to confirm it has been provided: It is unclear to us whether or not the acreage of land identified is correct.</p> <p>It is not just physical area that is important but the degree of ecological enhancement that will occur.</p>	Proposals need examination by independent experts to provide assurance that proposals are valid.	

			<p>Residents are concerned that existing good wildlife habitat may be bulldozed when it might better be incorporated into the plans.</p> <p>In early plans there were plenty of hedges in the compensation land, going back to the original small field landscape of the early 1800's. These then disappeared later and instead a very open landscape was proposed which provides less habitat and screening. Hedges, of mixed native species, should be maximised.</p> <p>Ponds are also important and should be provided where possible and they can be made permanent.</p> <p>It does not make sense to e.g. take existing grazing land, relabel it as mixed mosaic grassland and then claim it to be compensation land for the LTC. That area already existed and the ecological enhancement is small.</p> <p>If land is taken for compensation and mitigation and NOx offset then this must be permanent.</p> <p>Great concerns that if management of the land is vested in local authorities (GBC and KCC) it might later be declared redundant and</p>		
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			<p>sacrificed for development, against the original principles of its acquisition/provision.</p> <p>The documents state that after works are complete, that land will be restored to the satisfaction of the landowner, but it also needs to be to the satisfaction of the Parish and Borough Councils.</p>		
23	<p>Footpaths, cycle routes and bridle paths – various concerns: safety of multi-user paths, Wider Connectivity of paths, Non-motorised users enabled to use the crossing</p>	<p>2.1.98 2.1.99 2.1.100</p>	<p>The Project wants to provide multi-user paths but horses can churn up surfaces making them impassable in wetter months, and cyclists and horses together with pedestrians are a poor safety mix. Where there are multi-user routes they should have separated areas for safety reasons.</p> <p>Especially with recent expansion of land take for NOx offset, there should be creation of continuous longer distance paths that connect up communities. Some of the paths that residents use are former woodsman's tracks for coppicing, although shown on maps these are not public footpaths but need to be made so, with this being enabled as part of the project. SPC particularly mention Court Wood and Great Crabbles Wood in this context.</p>	<p>Further information and assurance needed.</p>	

			There need to be bus routes that connect Kent and Essex. There have been requests for shuttle buses to assist cyclists to cross, they are expected to use the Gravesend to Tilbury ferry.		
24	Light pollution and structure visibility concerns.	2.1.84 2.1.85 2.1.93	<p>The area is presently completely dark but will be lit at night causing light pollution for nearby residents and in the landscape.</p> <p>New structures with negative visual impact: A 75m pylon is being introduced (a replacement for less tall) in order to get electricity cables across the width of the LTC. It will not be possible to effectively screen this so there will be visual impact caused. A 50msq electricity substation is being introduced close to the new Chalk Park, from where (and other higher ground locations) it will be visible in the landscape, impacting on ambience and views. Several illuminated gantries and other road signs will be visible where none previously existed.</p> <p>And the reverse - a noise mitigation fence at Park Pale that was in the plans was inexplicably removed apparently to reduce visual impact but this was not discussed, it would have some</p>	Light pollution needs to be minimised, further info needed about lighting plans.	

			visual screening beneficial effect and anyway is needed to block headlights that would cause driver confusion on the northern feeder road so should be reinstated.		
25	Noise and Vibration – many concerns.	2.1.92 2.1.95 2.1.94 2.1.96	<p>Mitigation measures for noise and vibration during construction and afterwards need further discussion about what protective measures will be put in place, when and where, to maximally protect local residents, who should be of greatest importance.</p> <p>Data validity – the background noise levels quoted in documents appear too high, however additional readings were being taken. Claims of noise reduction due to the project do not seem credible.</p> <p>Noise impact on residential properties and recreational areas close to the Project are a concern. Although obvious that there would be noise pollution, noise contours were only first published in July 2021 and showed that residential properties and recreational areas, including the new Chalk Park, will be badly affected by noise from the Project.</p>	This needs detailed discussion over noise mitigation needs.	

			<p>New item: Tunnel ventilation – the documents claim that here will not be increased noise pollution to the nearest residential properties however there will be adverse effect on WCH routes, some of which go very near the tunnel mouth and are currently quiet and peaceful.</p> <p>The entire area and recreational routes and facilities currently valued for their tranquillity, such as Shorne Woods Country Park (the most visited park in Kent, with more than 1M visitors per year) will become subject to greatly increased traffic noise.</p>		
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