

TRO10032 LOWER THAMES CROSSING

COMMENTS ON APPLICANT’S SUBMISSIONS SINCE D4 For Deadline 5 (3rd October 2023)

SHORNE PARISH COUNCIL (IP ref 20035603)

Introduction:

We have reviewed all relevant documents submitted by the Applicant at D4, numbered REP4-001 to REP4-282 (excepting those based entirely north of the Thames).

The representations below only cover selected points that we consider to be of particular importance as in many cases they have already been covered in our previous submissions. Omission of mention of a particular topic does not indicate agreement with the Applicant’s responses. In some instances, we consider that expert IP’s will be able to provide better replies than we can.

Thank you very much for considering our representations.

Comments on relevant submissions by the Applicant:

REP4-116 6.1 ES Chapter 6 - Cultural Heritage v3.0:

- Gads Hill House:
 - Page 60, point 6.4.111 - A226 was correct, text now incorrectly says A266.
 - Page 181, point 6.6.111 - this also incorrectly refers to an A266. We also commented on this topic (Gads Hill historic tunnel under roadway) previously in our response at D3 to REP2-041 9.8 Environmental Statement Addendum. Harm to the historic tunnel (2461) cannot be “not significant”. The tunnel/roadway should be reinforced/strengthened before there can be any Construction traffic impact, to prevent harm happening at all.
 - This also cross-references to the same statement in other documents such as REP4-175 and AS-044, and possibly others.

REP4-132 6.2 ES Fig 7.8 - ZTV - 5km DTM Analysis of Main Construction Compounds v2.0:

- Landscape visibility of works compounds:
 - The very high landscape visibility of the assorted works compounds is noted.
 - This also means that there will be widespread Construction noise propagation.

REP4-148 7.9 Transport Assessment (Part 1 of 3) v3.0:

- Gravesham bus routes:
 - Page 90, section 6.94 – the text here is incorrect.
 - Page 92, Plate 6.29 – as commented previously on Page 2 of our representations REP4-396, this drawing of local bus routes is titled “Gravesend” but also covers Dartford. It does not show bus routes east of Gravesend. We note now that the drawing appears to have been

supplied by Arriva bus company, it therefore does not show Redroute and other services to rural areas hence why it is an incorrect and incomplete map.

- Page 94, Table 6.7 – this does feature two of the missing services (Nos 416 and 417) but not route 311 which has a different operator. These are important school services which will be negatively impacted by the project, especially during Construction.

REP4-160 7.14 Outline Traffic Management Plan for Construction v4.0:

- Use of Shorne Ifield Road as a Construction route:
 - Page 43, Table 4.1 – This mentions use of Shorne Ifield Road as an “Offline Route” to the Utilities compound for the “Full period compound is operational”.
 - As was seen on the ASI1 inspection visit, Shorne Ifield Road is not physically suitable for additional traffic, which would also damage its physical character.
 - We object strongly to its use for any Construction/Utility hub purposes.
 - We anyway regard such use as unnecessary as a temporary parallel access route could easily be created on the adjacent fields.
- Confusion over naming of streets; listing of streets:
 - Listing of streets for HGV and other restrictions is not sufficiently clear due to duplicate naming in the area (for example “The Street” occurs in both Cobham and Shorne)
 - The listing is also not sufficiently comprehensive.
- Bans needed for all construction vehicles, not just HGV’s:
 - Due to the inherent nature and unsuitability of many roads, bans should in many cases be for all construction traffic and not just HGV’s.

REP4-175 9.80 Environmental Statement Addendum:

- Impacted residential/sensitive properties:
 - Gads Hill House: Please see notes concerning Gads Hill House under REP4-116 above.
 - “Polperro”, Gravesend Road: Page 8 (also refers on Page 54, 56 and 57), Table 2.1, section 6.1 correctly reassesses “Polperro” as suffering very large adverse visual effects, however the property will also similarly suffer other noise and pollution effects.

REP4-179 9.83 Post-event submissions, including written submission of oral comments, for ISH3:

- Traffic to Shorne Woods Country Park is/is not within baseline for traffic modelling:
 - On Page 6, Point 3.1.19, the Applicant responds to a query from the ExA regarding how the traffic modelling has accounted for traffic movements to and from the Shorne Woods Country Park on Brewers Road.
 - As a Post Hearing note the Applicant states that “Shorne Woods Country Park was operational prior to 2016. As a result journeys to and from the park will be part of the baseline model”
 - This is both true and incorrect as the issue will be that traffic to the Country Park has increased disproportionately to background traffic increases over the intervening years.

- This is due to many initiatives by SWCP themselves that did not exist in 2016 such as: increased catering facilities; more than doubling the playground area including disabled playground facilities; increased School and other educational/similar activities including holiday clubs; Corporate team building etc; events that attract increased visitors such as Archaeology and other open days; and regular “fun runs”.
- Please see examples of current activities at:
[REDACTED]
[REDACTED]
[REDACTED]
- It is unfortunate that SWCP do not themselves have accurate visitor numbers, but whatever figure has been used by the Applicant for 2016, we doubt that it is a valid representation of the situation at present. This causes considerable concern for the modelling in general and in particular for capacities and function of relevant routes and junctions.
- As with other local attractions (for example, Bluewater Shopping Centre) and road use, the AADT figures anyway do not take account of seasonal variation, which can be very marked locally.
- Ultimately, it is how the A122:A2/M2 junction functions operationally, with frequent peaks of traffic demand, and being located immediately adjacent to very busy Country Parks, that is going to actually be relevant.
- Recovery diversion route for A122 access error at the A122:A2/M2 junction:
 - On page 35 under point A.3.3 the great length of the recovery diversion route is noted, being “between 38 – 41.5km”.
- A2/ M2/ LTC Intersection: mainline congestion:
 - On page 35 onwards, under point A.4 the above is discussed by the Applicant in terms of volume over capacity but they do not for each line state the actual volume or ascribed capacity so do not permit proper evaluation.
 - (This also refers back to the Applicant’s refusal to provide both volume and capacity figures for the A122 itself).
 - The suggestion is that with the V/C figures being below 85%, there will not be congestion yet Table A.2 of traffic speeds shows these to be considerably below the 70mph (as low as 51mph) that would reasonably be expected on a properly functioning major A road and motorway.
 - The with-scheme traffic speeds unequivocally demonstrate traffic congestion, and it should be remembered that this is only in “average” conditions.
- Responses to points made by Higham Parish Council:
 - On page 37, point A.8.3 is stated as there being “Very few alternatives if the LTC junction is congested”.
 - This was a very valid point but rather than the answer that was given by the Applicant, the point made was we believe referring to lack of alternative routes for local residents when the entire area including the whole of the “convoluted” key Gravesend East junction, also becomes blocked by incidents affecting the LTC.
- Misrepresentation/inadequate response to representations made by Shorne PC:
 - When submitting comments post hearings, like IP’s the Applicant has access to the written transcripts and video recordings of the hearing, therefore there is no reason for

inaccuracy/lack of checking text, yet (and not for the first time) that does seem to be the situation.

- Please see also similar situation under REP4-180 below.
- On Page 37 the Applicant states that Shorne PC said “Presentation does not show all the routes” whereas the transcript is as follows:
 - “..... there are two points I want to make. The first is that some of the slides that were presented from AS145 are not correct. There’s only limited trips presented where there are some other trips which would be more difficult, or cause more rat running, etc.
 - I especially comment on slide 23, which is supposed to be the routes taken by Shorne residents, and that suggests that the principal route that people would take would be to head north to join the M2. That is just not correct. The principal route, actually, is to go south past Country Park, and turn that way. Whereas in the future, yes, people probably wouldn’t do that, because it doesn’t pass the ‘Are you in your right mind?’ test to actually take that route. It would be better to turn right onto the A226, but that has its own consequences, particularly with regards safety.
 - And the other point I’d make is that we’ve had a lot of discussion with National Highways – ‘discussion’ is a euphemism – over the difference between a function being provided and providing something that is functional. We’ve heard the connector roads referred to as ‘convoluted,’ and I think that’s another euphemism, really. We’re talking about considerable extra distance for a large number of residents.
 - I’m not talking just about Shorne – in Gravesham as well – a lot of extra roundabouts, traffic lights and, as we’ve heard, a considerable risk of congestion because of the large number of additional users that would be on these routes compared to presently, and obviously, I share Gravesham’s concerns, particularly that people in the know will try and avoid these routes in various ways, and this is going to be a problem.”
- The Applicant’s response on page 48 also does not match the matters raised at that point in the hearing, which was as follows:
 - “Obviously, we support the comments that were just made by Gravesham about the poor ambience of the A2/M2 corridor.
 - Regarding the landscaping between the Lower Thames Crossing, junction two and the portal, which is what you can see on your screens presently, we were quite happy with the original wooded design, and a bit puzzled when it suddenly changed to the open design that you can see there.
 - Although it was said something about there being wooded hilltop on both sides of the LTC line and we can’t see that there was one on the west, so we’re not quite sure what was meant about that.
 - But our main point really is that we feel that the design should be primarily aimed at protecting the residents locally and providing high ambience with the new footpaths which, given them that they’re along the sides of the chasm, aren’t going to be necessarily very pleasant. So I’m not convinced that an open vista is in the best interests of the local residents and the future ambience of the area.”
- For the remainder of our post-ISH3 submission including expansion of the above points please see REP4-398.
- Please also see our comment about lack of corrections to AS-145 under REP4-206 below.

REP4-180 National Highways 9.84 Post-event submissions, including written submission of oral comments, for ISH4:

- Misrepresentation/inadequate response to representations made by Shorne PC:
 - Please see also comments under REP4-179 above.
 - In point C.8.1 on page 62 the Applicant responds “In regard to comments on the appropriateness of the diversion route for the closure of Brewers Road...”, however the point that we made, as in the ISH4 transcript, was as follows:
 - “..... in connection with the Brewers Road bridge closure. The point I wanted to make is that sometimes road closures force people to take a different route, and that will be the case for Shorne residents, who will have to go north to the A226 and turn left or right, and that is going to be across the construction traffic increase on the A226. So those movements do need to be facilitated with traffic lights and again, like Councillor Wright said, we would like some assurance that this point is being taken seriously, and will be taken forward to the construction plan.”
 - The point is that we did not question the appropriateness of any diversion but had concerns about safety and useability of the routes that residents will take as a consequence of the long closure period of the bridge.
 - The Applicant states that diversion routes will be refined later however that does not provide reassurance now or assurance for the future.

REP4-181 9.85 Post-event submissions, including written submission of oral comments, for ISH5:

- Workforce changes with the single TBM scenario:
 - Section B2 starting on page 37 looks at workforce and commuting figures but is only considering changes north of the Thames whereas there will also be changes in on-site workforce south of the Thames.
 - The increased amount of work being undertaken south of the river, including 24-hour working, numbers of active staff on-site (even if they travelled first from the north so have already been counted there) and similarly for vehicle movements within the works compounds south of the Thames all still need to be detailed.
- Flood risk of Construction drainage area on Great Clane Marsh:
 - Under point B.8.3 on page 43, the Applicant states: “The Parish Council claimed that the area that is proposed to accommodate the drainage treatment lagoons is prone to flooding in winter and that the arrangements remain vague.” The Applicant’s response does not match the comment made.
 - What we actually said at the hearing, as per the Transcript was “.....the drainage arrangements from the chalk storage areas in the south drain into [inaudible = Great Clane] marsh, where a lagoon is proposed. That’s actually an area that’s prone to flooding in winter anyway. Also, the arrangements – what’s actually going to be in that area, remains vague because the plans show square outlines which haven’t yet been explained, and this is close to houses, so if there were going to be pumps there are questions, obviously, for pollution on that. And so we would like to know what the full plans are for that area.”
 - We provided an extract from the flood risk map on page 32 of our previously submitted Written Representations REP1-408.

- We made further discussion in our post-hearing representations REP4-398, section titled “Water Resource management” starting on page 15.
- We note however that our understanding up to this point in time was that the irregular shaped area shown on the marsh was for a lagoon of “clean” water storage prior to its being discharged but we now understand (from detail newly provided in later documents such as REP4-195,196) that this area is intended as temporary replacement bird habitat.
- The fact remains though that the land at Great Clane Marsh where the outlines of presently unknown structures are shown is liable to flooding so the impact of additional water being discharged there needs consideration.
- Long-duration chalk stockpile, previous proposal superseded:
 - We are grateful to the Applicant for the updated information clarifying the position as now proposed, under B.8.6 etc on page 43 onwards.
 - We note the link to APP-338 which confirms under point 7.6.1 on page 52 that the volume of material now proposed to be transported offsite is “South of the River Thames: 3,500m3 (of which all is hazardous material)”.
 - We therefore look forward to further details of timeframes and methodology, including the 400 construction vehicle movements and strict containment (during storage and transport) of these hazardous materials.

REP4-182 9.86 Post-event submissions, including written submission of oral comments, for ISH6:

- Is there reduction in severance resulting from the Green Bridge proposals:
 - On Page 41, section B.2.2 under Green Bridge Ecological Matters the Applicant suggests that their proposals reduce ecological severance.
 - We are unclear how severance is quantified scientifically, and such is not presented, however we consider that what is being proposed may in fact be an equivalent degree of severance to that existing at present but organised in a different layout.
 - We consider that the proposals should be aiming to resolve all possible forms of existing severance due to the current roads network, particularly given the high area of ecologically important land locally that is presently divided by the A2/M2 line.
- Additional detail on Green Bridge proposed design:
 - We are grateful for the additional information provided in B.2.3 and B.2.4, from page 41.
 - This information suggests a better and more extensive “green” design for Brewers Road and Thong Lane south bridges than has been informed or shown in drawings previously.
 - It is assumed that all the figures given are added up for the total widths, and that the horse-rider and walking/cycling areas will be physically separated.
 - We still of course consider that green bridge provision could be wider still, as we discussed along with many other aspects in our post-hearing representations REP4-398, page 18 onwards.
 - There was discussion at ASI1 about having tunnels under Brewers Road to improve ecological connectivity. In B.2.9 the Applicant says “For Brewers Road green bridge the connection over the HS1 green tunnel.....” so we would be grateful for this to be clarified as to whether there is some kind of physical ecological connectivity tunnel already in place there and elsewhere beneath HS1 in the order limits areas.

- B.2.10 discusses “seasonal and temporal separation” however these bridges south of the Thames are used by vehicular traffic at all hours of the day and night regardless of season and daylight length.
- Section B.13 on Page 52, regarding Park Pale bridge, we disagree with the assessment.
- We will be interested to see the further detailed discussion and input on these matters by expert IP’s however whether or not “the Applicant is satisfied” (Ref B.2.8) should perhaps be of relatively minor importance overall.

REP4-189 9.89 Responses to the Examining Authority's ExQ1 Appx B - 4. Traffic & Transportation

- ExQ1 Q4.1.6 Turning counts:
 - The response does not tell us where and when the cited 38 one-day turning count studies with 317 individual turns were undertaken. This information, the dates and duration of the studies, and the results should be published.
 - ANPR studies were also undertaken, similarly the above information groups should also be published.
 - We are unclear why “two-week ATC data” would not have been undertaken at the same Manual Classified Counts (MCC) locations and therefore be available.
 - Which MCC locations showed “major discrepancies”?
 - Given the importance and overall cost of this project we would expect the data gathering to be especially detailed and robust.
 - We consider that the public has the right to expect that very major decisions are based on the most comprehensive, accurate and recently gathered data that is possible, but this does not seem to be the situation.
- ExQ1 Q4.1.7 LTAM and the local road network:
 - This response attempts to justify the Applicant’s choice of peak hours of 07:00 to 08:00, and 17:00 – 18:00.
 - The A2 is an integral part of the “local” traffic network as well as the Strategic Road network – it was built and enlarged in effect to bypass Gravesend. It is also the case that because commuters from Kent travel long distances to work they set out earlier.
 - Examination of the National Highways webTRIS system shows that westbound traffic is fairly constant at high levels from 06:00 through to 19:00, whereas eastbound traffic builds throughout the day from 07:00 to 19:00.
 - This high level of westbound traffic mid-morning was also observed during the ASI1 visit.
 - Eastbound traffic reaches a much higher peak than westbound.
 - This pattern of traffic loading does not appear to be standard on the rest of the strategic network and makes it questionable whether the traffic levels on the A2/M2 bear enough relationship to the rest of the Strategic Road Network for LTAM etc predictions to be valid.
- ExQ1 Q4.2.4 Monitoring and Mitigation: Effects on Travel to School Trips:
 - Although the question was about monitoring of distances, we consider that the relevant parameters of interest are increased time and difficulty of journeys.
 - While monitoring school trips is important, monitoring by itself does not achieve anything except knowledge of the situation.

- The Applicant again refers to “local schools”, but we have said previously in that the relevant issue is local schoolchildren as the schools they attend and need to travel to may not be local to the project.
- Impact in Gravesham is on children of all ages not just primary age, with nurseries, secondary, 6th form and older college students also adversely affected.
- It is unlikely that Construction organisation could be altered sufficiently to improve impacted school trips except perhaps through assigning priorities at temporary traffic lights and other junctions. It is more likely that transport operators and parents (school trips are not only by buses) will have to allow considerably more time and/or alter their routes. That of course also impacts on the personal lives and work of parents delayed in travelling on to their workplaces as well as on the children.
- ExQ1 Q4.3.5 Diversion Routes:
 - The answer given by the Applicant is much as previously given in response to the Written Representations from TCAG.
 - Please see our previous comments on pages 12-15 of REP3-201.
 - The answer is written purely from the viewpoint of “customers” (who appear to only be users of the strategic road network) and not the local residents and businesses who will be adversely impacted by congestion and gridlock.
 - The point is that, whereas in the north there is a direct connection to/from the M25, in the south there is not.
 - Instead, there is a situation of a “missing link” between the M26 and the A122 which causes drivers to make their own free choice of route, however unsuitable for such additional traffic.
- ExQ1 Q4.3.6 Dangerous Goods Vehicles at Dartford:
 - We agree with the Applicant that oversized and hazardous loads will still need to use, and will still present themselves at, the Dartford Crossing and need to be managed there.
 - We would be strongly opposed to increased numbers of such vehicles being forced to divert and use the A122 and approach routes as these would further disrupt traffic in the area as well as increasing hazards for local road users and residents.
- ExQ1 Q4.4.4 Emergency Access Modification:
 - We are opposed to the idea of also using the emergency access route as a means for buses to join/leave the A122.
 - The emergency access route crosses a well-used public footpath so bus use would increase danger to WCH users.
 - Bus use would also increase the impression of urbanisation in what is supposed to be a rural, green belt area.
- ExQ1 Q4.4.5 Reduction in A2 Running Lanes:
 - Regrettably, we still do not believe that the capacity eastbound through Gravesend East, with narrowing of the A2/M2 line eastbound to only two lanes, will be sufficient.
 - We hope that some expert IP’s will be able to resolve the ongoing questions about traffic volumes versus road capacities as traffic moves through the junction.

- ExQ1 Q4.4.6 Capacity at A2/LTC Interchange:
 - While there may have been problems with the KCC modelling, which we are certain can be corrected and revaluated, the Applicant’s own figures and diagrams from REP3-112 also show links with poor performance.
 - On Page 118, section 7.3.20 it states that “.....in the 2045 PM peak there are a number of links at the M2/A2/A122 Lower Thames Crossing junction that are forecast to operate above 85%, including: a. A2 eastbound distributor (98%), b. A2 eastbound distributor approaching Brewers Road (95%)”.
 - It does not seem good to us for the Applicant to be planning a scheme while knowing that some of the links will be at capacity only a few years later.
 - Also we note the above says that “.....there are a number of links.....including.....”, meaning that there are others that will also be over the 85% V/C ratio.

- ExQ1 Q4.5.2 LTC/A2 crossings:
and
- ExQ1 Q4.5.3 Cycling and Severance of Routes:
 - The routes that are being provided for NMU’s are much longer and convoluted, and of lower ambience than existing.
 - The diversion via Thong Lane north bridge add 2km to routes, and that via the two-way connector road south of the A2 adds 1km.
 - As we and others have said previously, while there is so much upheaval going on anyway, the opportunity should be taken to upgrade the linked HS1 Bridge so that cyclists and horse-riders do not need to dismount.
 - The section between Henhurst Road (where another signalised crossing point is involved) and Brewers Road roundabouts is not mentioned or described.
 - In all, pedestrians and cyclists will have to negotiate 4 signalised crossing points, and the environment of 6 roundabouts and two T-junctions, including the unsignalized crossing of Halfpence Lane instead of the current direct and unencumbered route of the current NCR177.
 - The considerable increase in length of the diverted routes, (and their reduced ambience alongside the A122 cutting and the southern two-way connector route complex of roundabouts, will discourage active travel and reduce possibility for health improvements, assuming any were anyway possible due to the noise and air pollution increases.
 - In previous representations we suggested that there should be at least one “Thames Chase” style bridge across the A122 line near the LTC:A2/M2 junction, this would correct the severance being caused to footpaths there in a much simpler, shorter and safer manner than as currently proposed. We feel that there is a disparity in design and planning evident.

REP4-190 9.89 Responses to the Examining Authority's ExQ1 Appx C - 5. Air Quality:

- ExQ1 Q5.1.1 Baseline:
 - We have commented previously that air quality and pollution figures are highly manipulated.
 - They also inter-dependent on outputs from the LTAM model.

- ExQ1 Q5.1.3 Methodology: Open Spaces for Human Users
 - It is very hard to understand this discussion, which seems to be saying that the increased pollution exposure suffered for example by someone taking a one-hour or more walk along the edge of the A122 chasm or on the diversion route for NC177, does not matter.
 - We find it very hard to understand the relevance of the Holmesdale Tunnel and Greenwich areas to the assessment of effects locally, close to the A122.
 - We have previously discussed concerns that there are discrepancies between various air quality measurement sources.

- ExQ1 Q5.1.4 Methodology: Air Quality and Junctions
 - We note that the Applicant’s response quotes the DMRB guidance as referring to “....a 100m radius of the centre of the junction on an urban/rural road in all directions”.
 - This implies a simple T-junction, or cross-roads, on a simple road and not a major junction such as the A122:A2/M2 where the junction itself has diameters of greater than 200m.
 - We doubt that the guidance was intended to apply to complex/major junction situations and therefore it should not be used in this way.
 - There are residential and other receptors at for example Marling Cross (GR110 “Nell’s Café”) where air pollution levels are already very high. The impact on such areas needs to be considered much more carefully.

- ExQ1 Q5.1.11 Monitoring – Operational Phase:
 - It seems rather wrong that the Applicant can claim that the project will not have any adverse impacts on air quality when designing the project and trying to get permission for it, but then refuse to check/confirm whether or not their predictions were correct or therefore take any remedial action (if possible).
 - We disagree with the Applicant’s statement that “.....it would not be possible to use air quality monitoring data to determine the impact of the Project on air quality.....”. Of course it would, just as it was possible for the Applicant do such monitoring for planning purposes. The variables encountered would not be any different, and comparison with nearby sites as a “control” would correct for one-off issues and confirm the background situation.
 - Please can the applicant be asked to detail the locations on the project where they propose to install automatic monitoring sites.

- ExQ1 Q5.2.5 Modelling NO2:
 - There is discussion about high pollution levels obtained at GR142, but the Applicant is very dismissive of impacts.
 - The point is that the GR142 location is representative of current pollution on the inclined A2 at this location. Currently there are 8 lanes of traffic, but with the project this will be more than doubled in overall width and with a considerable increase in traffic volumes.
 - Although the Inn on the Lake is a hotel it has permanently resident staff (5 names on the Electoral Register, and there are also 2 at Boughurst Cottage/”The Nook Pet Hotel”). There will be other staff working long hours in these locations.
 - Table 7 refers to GR141, assumed a typo but needs checking.
 - Overall, for all sites, we do not find the Applicants figures or calculations to be credible, however even NH show that figures in Table 9 will be worsened and become borderline to breaching regulatory limits.

REP4-192 9.89 Responses to the Examining Authority's ExQ1 Appx E - 9. Noise & Vibration:

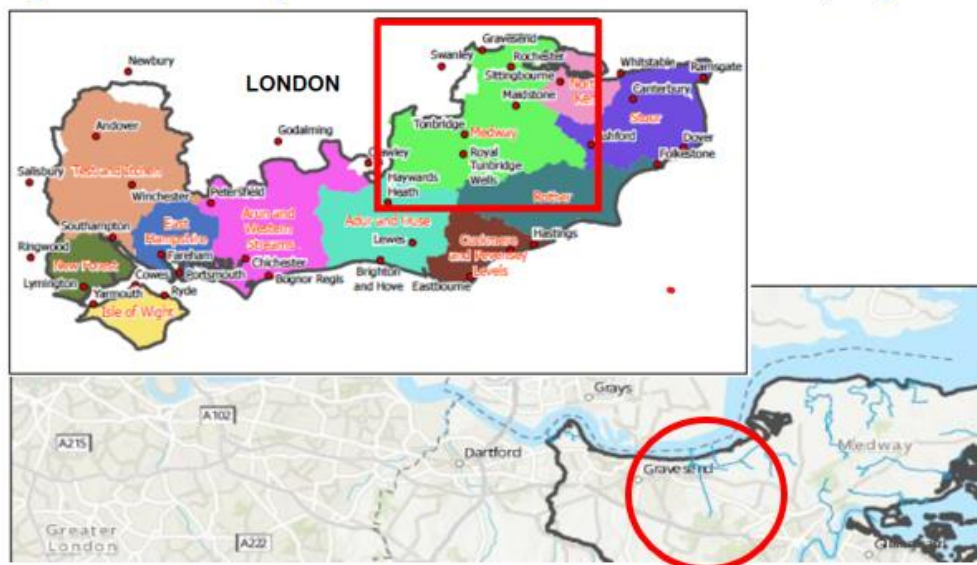
- ExQ1 Q9.1.1 Survey/ Baseline:
 - We do not accept that undertaking measurements for only 3 consecutive one-hour periods on a single day can provide sufficient information to establish baseline noise levels, allow assessment of present tranquility, or to predict lack of impact of construction noise and lack of increase in Operational noise.
 - Residents will inform that noise levels heard from the A2 are very variable with weather conditions hence many more measurements would be needed in order to establish a representative sample.
 - It defies belief that imposing a large and very busy road into a relatively tranquil area will not have significant and widespread noise pollution effects.

- ExQ1 Q9.3.5 Tunnel Boring Method:
 - We have commented elsewhere that having a single TBM introduces 24-hour working at the southern Portal.
 - The noise impacts of this change have not been assessed so far but need to be.
 - It is not acceptable for the Applicant to try and dodge this by claiming no change across the whole project.

REP4-193 9.89 Responses to the Examining Authority's ExQ1 Appx F - 10. Road Drainage, Water Environment & Flooding:

- ExQ1 Q10.1.1 Consultation:
 - Various bodies are listed who were consulted and provided data, but the key point is whether those same bodies agree that the investigations done, the findings and the conclusions from the studies are correct and properly represent the situation.
 - The list does not include Southern Water, we have asked many times for confirmation that they have provided input concerning streams in the area that provide water to the marshes but the Applicant has not yet provided this reassurance.
 - We have queried many times as to the route taken by water in streams leaving the Country Park.
 - We note the following map from the Southern Water Drainage and Wastewater Management Plan (DWMP), Overview of the Medway River Basin Catchment, October 2022, Version 2. This again shows a watercourse leaving the Country Park and coursing north-west, so we again ask for the Applicant to contact Southern Water for clarification (and to report back).

Figure 1: The Medway river basin catchment in North East Kent, England



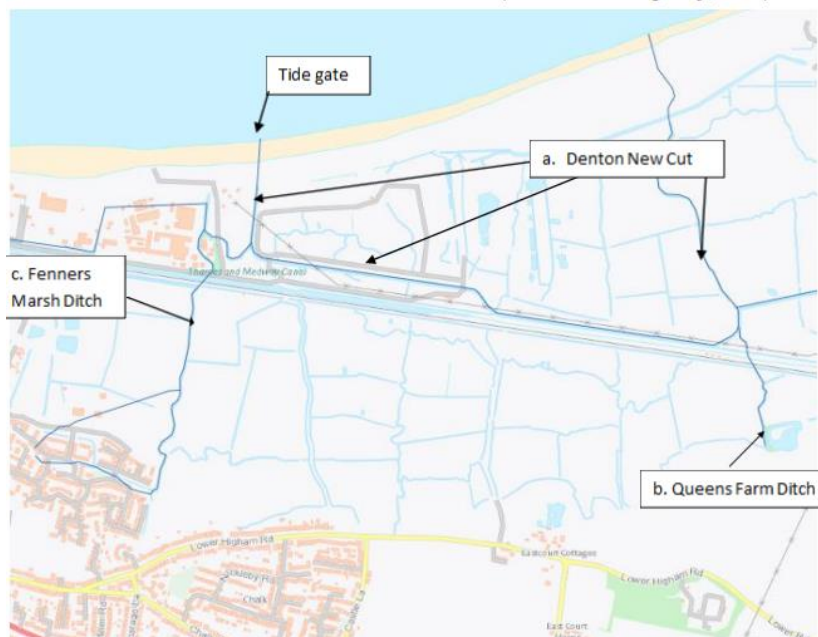
- ExQ1 Q10.4.5 Site Information:
 - Thank you very much for asking this question in reference to Figure 14.1 - Surface Water Receptors and Resources [APP-322] as this is exactly the question that we have been asking repeatedly as discussed again above.
 - Consideration of these, and the potential impact on them of the Construction of the A122 remains inadequate.
 - This is evidenced as the Applicants response to the question is vague and demonstrating lack of knowledge, saying “The isolated ordinary watercourses delineated in ES Figure 14.1: Surface Water Receptors and Resources [APP-322], would connect to the wider watercourse network via culvert or flow into ponds which are not depicted on the figure.” “Would connect” means that the Applicant does not actually know how they connect.
 - We consider that issues around the water supply to the North Kent Marshes SPA and Ramsar Site being in part derived from northward land drainage are being ignored by the Applicant, in their own interests.

- ExQ1 Q10.5.3 The Thames and Medway Canal (and North Kent Railway Line):
 - Thank you for asking this question.
 - The answer by the Applicant raises new concerns as a new secondary purpose of the Milton Compound is stated as “.....a base for mitigation works to protect and remediate the Thames and Medway Canal and North Kent Railway assets from any tunnel-induced settlement.”
 - It would be a matter of great concern that any remediation at all for these assets might prove necessary due to the project.
 - Similarly for the Canal towpath as it was simply not designed to carry such large weights.
 - Additionally, if the towpath use is only “low volume” as stated, then it ought to be possible to keep the footpath and national cycle track open during most of the relevant time period of works being undertaken.

- ExQ1 Q10.6.3 Discharge to the River Thames:
 - While it is correct that the “Environment Agency is the drainage authority”, the North Kent Marshes Internal Drainage Board are responsible for ensuring/maintaining water levels in the interconnected marshes ecosystem.

- As we have evidenced previously elsewhere, the Great Clane Marsh area is prone to flooding and new built houses etc to the west are experiencing problems. Discharging additional water here is therefore a concern.
- The Applicant’s drawing on page 18 of ES Appendix 14.2: Water Features Survey Factual Report [APP-454] as below shows that there are more ditches involved than they show on their new drawing (Plate 2.5 on page 35 of REP4-193).
- There is another outflow to the Thames at the eastern part of Denton New Cut. Overall there is concern that the Applicant might cause potentially contaminated water to flow in a non-standard manner from west to east into the main part of the Ramsar Site.

Plate 5.1 Main rivers within and near the Ramsar (Environment Agency, 2015)



REP4-194 9.89 Responses to the Examining Authority's ExQ1 Appx G - 11. Biodiversity (Part 1 of 6):

- ExQ1 Q11.10.4 Groundwater Quality, Monitoring and 'No LSE' Conclusion
 - We remain unconvinced that there is no contribution to the Ramsar Site and marsh areas from the adjacent higher land from surface and groundwater.

REP4-195 9.89 Responses to the Examining Authority's ExQ1 Appx G - 11. Biodiversity (Part 2 of 6):

- Input from Natural England (Annex F2, and others):
 - We are very grateful to see this input and particularly note the various concerns expressed about the Ramsar Site and SPA in general and particularly the proposed southern portal compound drainage arrangements.
- Annex K Technical Note Ramsar Advanced Grouting Tunnel and Main Tunnels Numerical Model:
 - This was particularly interesting in the light of concerns that we had expressed over methodology and risks to the overlying marshes, and additional information that we had sought about ground structure, tunnelling methodology and method safety and success.

- If there will only need to be two “intervention points” then it is possible that direct drilling from the surface at those two points could pose less total risk than having to build two 9.7m OD access shafts and a permanent 5.8m OD connecting tunnel. The balance of risks of the two possible methods need to be compared side-by-side.
- We note that the ground strengthening grouting extends for 0.5D wider than the two main tunnels so is very extensive.
- We have still not been informed about locations where this methodology has been used successfully (for marshes) in similar ground structure below protected designation alluvial marshland areas.
- Need for Caisson piles is noted, this had not been communicated previously – these could themselves cause problems, it is unclear if they get removed again post-works.
- A range of additional worrying sounding potential complications are noted.

REP4-196 9.89 Responses to the Examining Authority's ExQ1 Appx G - 11. Biodiversity (Part 3 of 6):

- Annex AA1 Technical Note Ramsar Advanced Grouting Tunnel and Main Tunnels Numerical Model (R1):
 - The updated documents from the previous submission REP4-195 are noted.
- Annex AA2 Technical Note Baseline Water Balance for the Ramsar site (Filborough Marshes):
 - Noted with interest.

REP4-197 9.89 Responses to the Examining Authority's ExQ1 Appx G - 11. Biodiversity (Part 4 of 6):

- Annex JJ 13 April 2021 Technical Note - Construction Noise and Mitigation:
 - This describes noise levels and noise propagation at the north portal area due to TBM operation.
 - A similar situation of additional noise and noise propagation will occur at the south portal in the single TBM scenario.
 - Equivalent discussion and charts need to be published for the single TBM scenario at the southern portal, in order to evaluate noise impact on nearby residents, schools etc and required protective measures.
- Annex KK 13 April 2021 Technical Note - Ramsar Surface Water Ecology Baseline (Construction surface water discharge):
 - Noted with interest.
 - This document provides some information that has so far been lacking about the location of the settlement lagoons for water runoff from the chalk stockpiles, and the structures shown in the Great Clane Marsh area (“Discharge pipe – surface working area”).
 - As pumping activities would need to occur at low tide, the timing will continually change and there could be noise nuisance to nearby residents.
 - Further detail is still required.
- Annex NN 12 May 2021 Technical Note - Ramsar Surface Water Ecology Baseline (Construction surface water discharge) Revision 1:
 - As above.

- Refers to ES Appendix 8-4 Freshwater Ecology and that surveys were completed on 22 August 2018. Clearly surveys undertaken at the hottest, driest time of the year will produce different results given that the purpose of the ditches is to drain excess water from the land, as occurs in winter.
- Water Quality monitoring was also undertaken again in summer between 13 June 2019 to 25 July 2019 although Roboduck monitoring was undertaken in January 2020.
- Solute concentrations would tend to be highest in summer and lowest in winter. By using summer figures the Applicant ends up allowed to discharge higher levels of solutes all year round although that is not the average situation which could result in harm being caused.
- Equally green field discharge rates at a constant 2L/min would have different effects in summer and winter, depending on how dry the marsh fields are and the water height in the ditches.
- We note also that such run-off is usually cited as 2L/min/hectare, so we are unclear how that relates to the volume proposed.

REP4-200 9.89 Responses to the Examining Authority's ExQ1 Appx H - 12. Physical Effects of Development & Operation

- ExQ1 Q12.1.12 Missing Archaeological Fieldwork:
 - The need for additional archaeological trial trenching is noted, numbers and locations.
 - This is also needed on NOx deposition land brought into the scheme after the original studies had been done.

REP4-206 9.95 Visual representation of A2-M2-LTC v2.0:

- Lack of corrections:
 - Please see comment under REP4-179 above.
 - This stated update of AS-145 is noted but Slide 23 has not been corrected.

REP4-212 9.102 Applicant’s responses to IP’s comments on the dDCO at Deadline 3:

- Page 42, response to Shorne Parish Council:
 - the responses to two earlier questions are noted with thanks.
 - However, concerns about the Ground Protection Tunnel and grout injection continue.
 - The Applicant has kindly agreed to a meeting on this topic, which will take place shortly.

Shorne Parish Council
3rd October 2023