

Number	Mitigation/Scheme Enhancement/Assessment	Type	Theme	Task Force Key Priority	Timescale	People	Place	Prosperity	Justification	Key stakeholders	Key influencers	LTC project draft comments	Update 5.11.18	Update 05.02.19
1	A senior government official appointed that can broker better local outcomes for Thurrock and the neighbouring Councils. Thurrock to present emerging local plan information to LTC/MHCLG/DfT regular update meeting.	Mitigation	Policy	2	Before DCO	YES	YES	YES	To reflect that this scheme will affect other Government departmental priorities i.e. MHCLG, BEIS, EA and Department of Health & Social Care/Public Health England.	Thurrock Council members Members of other affected local authorities – Gravesend Borough Council, London Borough of Havering, Brentwood Borough Council, Medway Council, Kent County Council, Essex County Council	Jackie Doyle Price MP (Thurrock) (also Parliamentary Under-Secretary of State for Health) Steven Metcalfe MP (South Basildon and East Thurrock) MPs for other affected areas Department for Transport (DfT) Secretary of State (SoS) for Transport	LTC agree with principle Thurrock to present emerging local plan information to LTC/MHCLG/DfT regular update meeting	Presentation taking place with MHCLG. Sean Nethercott arranging	Emerging Local Plan presented to HE at workshop on 30 Jan 2019. Follow up actions for HE and Thurrock, including liaison with PINS (Local Plan team) re-consideration of Local Plan in LTC scheme
2	An Independently Chaired Design Steering Group of directly affected Local Planning Authorities should be constituted, external to the project. LTC project to engage, with a senior HE employee to attend the Group and agree common and local aspects of design.	Mitigation	Policy	2, 5, 8	Before DCO	YES	YES	YES	To provide design oversight and ensure that the negative scheme impacts on local people, place and prosperity are minimised.	Design Council: CABE Thurrock and other local authorities Highways England Strategic Design Panel	HE Strategic Design Panel (to be renamed appropriately) DfT SoS	LTC positive, although would like to change nomenclature Suggestion this is led by host authorities as external to project rather than host authorities being seen to be too embedded in project design panel. LAs need to decide who joins and who facilitates.	To be discussed with HE	Thurrock to participate in Design Panel. Next review meeting Apr 2019. ToR for panel requested to allow extent of input to be determined.
3	To constitute a Construction Procurement Group to seek to deliver local ambition within the Social Value Act (2012) including significant weighting on social value (e.g. 50% Quality, 30% Price, 20% social value).  This should be included in DBFM contract to ensure embedding in the project.	Mitigation	Policy	1	Before DCO	YES	YES	YES	To ensure that value is considered at all stages of the project. To ensure value to Thurrock is beyond basic incidental trade.	South East Local Enterprise Partnership (SELEP) Thurrock Business Board Tilbury Port DP World Local business groups	SELEP Specific business led Thurrock proposition – via Thurrock Business Board?	LTC procurement team are reviewing this. LTC already discussing issue with educational bodies. Needs to be linked to DBFM contract to ensure these are embedded issues. HE to invite Thurrock (and other host authorities?) to discuss further.	To discuss with HE now PF2 contracts will not be progressed.	AE meeting with HE legacy/benefits team
4	Ensure that the Local Authorities the scheme falls in are the discharging authorities for all requirements and obligations associated with the DCO	Mitigation	Policy	2	Before construction	YES	YES	YES	So that the affected Authorities can ensure that conditions and obligations are properly fulfilled.	Thurrock Council Other affected local authorities – Gravesend Borough Council, London Borough of Havering, Brentwood Borough Council, Medway Council, Kent County Council, Essex County Council	DfT Other local authorities who have worked with HE DCO? E.g. South Cambridgeshire District Council, Huntingdonshire District Council, Cambridgeshire County Council?	HE will progress on basis that DfT is the discharging authority. This is to be discussed further via draft DCO.	Will be discussed at future HE technical meeting	HE put on notice of this desire. AE arranging meeting with HE and PINS (DCO team)  Meeting with other affected LAs 07/02/19
5	<b>That a 1km development boundary creates a new habitat including woodlands or wetland. That each change has a confirmed palette of materials and planting selected by the design steering group and that all such mitigation be progressed in parallel. This 1km buffer would allow the provision of substantial mitigation, where required for mitigate impacts on existing natural resources and receptors but would also ensure that LTC is adequately screened for the new development being proposed in the emerging Thurrock Local Plan.</b>	Scheme Development & Design	Policy	5, 7	Before DCO		YES	YES	To ensure that the scheme is designed to minimise its adverse visual and environmental impacts and that such mitigation meet local ambitions and is secured as a long term asset for Thurrock.	Natural England Woodland Trust Essex Wildlife Trust Thames Chase Trust (Community Forest) Forestry Commission RSPB	HE Strategic Design Panel	LTC would like to know more about the reasoning for this. JL indicated this related more to design than to mitigation. AE suggested LTC action to consult on boundary.	Cannot justify this and there are no powers to deliver it. Needs to be looked at again	1km buffer not deliverable. Discussion of design palette, mitigation and enhancement proposals at specific key locations is included in HE technical meeting schedule
6	HIA working group to be established with representatives from all local authorities to influence the methodology and content of the HIA. HE should produce a comprehensive Health Impact Assessment for LTC. From that HIA should seek agreement from the Steering Group a mitigation / enhancement strategy. This would include a strategy for engaging vulnerable groups, schools / low income households etc.	Assessment	Human Health	7	Before Statutory Consultation	YES			To fully understand and mitigate the potential implications of the scheme on human health and health inequalities.	Public Health Directors Public Health England EHQs (AQ, noise & vibration) Thurrock Clinical Commissioning Group	Public Health Directors Public Health England	LTC are producing a Communities and Health Impact Assessment, incorporating HIA and EIA. SB indicated that the Directors of Public Health are to get together to define what they are expecting. LTC indicated that there is a chance to influence the methodology and content and suggested a working group.	There is a meeting of LA DPH representatives 14.11.18 and an HE meeting on 23.11.18 2019. Next meeting scheduled Apr 2019	Work underway. Community Impacts and Public Health Advisory Group meeting held 29 Jan 2019.
7	Determination of the scheme impacts on human health and the environment by conducting Contaminated Land Risk Assessments of all potential sources of contamination such as landfills and brownfield sites along the route. Chemical, Radiation and Environmental Hazards should also be addressed.	Assessment	Human Health	7	Before DCO	YES	YES		To allow the impacts on human health and the wider environment to be identified, design remediation or mitigation and to provide baseline data for an ES Chapter on Ground Conditions.	Thurrock EHOs Environment Agency Public Health Directors Public Health England	Environment Agency	LTC – this will be included in ES and DCO Requirements. SB requested this includes consideration of Chemical, Radiation and Environmental Hazards.	Will be available as part of the DCO application documents	EHO issues included in schedule of planned HE technical meetings
8	Increasing project objectives to standards higher than "minimise adverse impacts on health and the environment" of the preliminary environmental baseline to "improve health and environment" (HE Corporate Strategic Outcomes). Whilst LTC project predates HE Corporate Strategic outcomes HE's Designated Funds should be used to close the gap between project and HE corporate objectives.	Mitigation	Human Health	7	Before DCO	YES	YES	YES	Meet HE's own core policies.	HE corporate	DfT SoS	HE scheme requirements pre-date the HE corporate objectives. Potential to use designated funds to push for parity.	to be discussed at HE technical meeting	Incorporated in item 6 above
9	Modelling working group of host local authorities, TL (if appropriate) and HE/LTC to be convened to consider issues. To release the LTC local transport model at least 3 months prior to any Statutory Consultation and demonstrate it provides sufficiently accurate detail of the project impacts. The modelling to include:- a) National level factors around the key drivers of transport demand such as economic growth, demographic change, travel costs and labour market participation b) Recognise the interface with the emerging local plan c) An assessment of the benefits and costs of schemes under high and low growth scenarios, in addition to the core case. d) Appropriate sensitivity analysis to consider the impact of uncertainty on project impacts. e) A 'do-nothing' scenario for increased GVA and delivery of new homes. f) Tilbury Link Rd	Assessment	Transport	1, 4	Before statutory consultation	YES	YES	YES	In accordance with paragraph 4.6 of the National Policy Statement for National Networks (NPSNN). To ensure that all impacts of the proposed scheme are fully understood by all parties.	Thurrock Environment & Highways Kent CC Highways, Transportation and Waste Essex CC Infrastructure and Environment Medway Council Transportation TL	HE DfT	HE will not release full model but will release bespoke runs and data. Need to agree formats for release of information. Cordon runs for designated areas will be released as soon as possible. Recognition of interface with emerging local plan and Modelling working group to be convened (see notes at end of document).	PBA to advise	Discussions with HE ongoing. Cordon model to be issued to Thurrock, expected mid Feb
10	That HE undertake a detailed safeguarding for current and potential Local Plan growth scenarios in terms of capacity and location of new link roads and junctions and that these be safeguarded prior to DCO and any included in any scheme planned shared with potential contractors. As per item 1, Thurrock to present emerging local plan proposals to LTC/MHCLG/DfT regular update meeting. That the Tilbury Link be thoroughly assessed on the basis that the main road continues beneath the railway line but with a junction south of the railway line within cutting.	Mitigation	Transport	2	Before DCO		YES	YES	To reflect Thurrock's proposals for growth and ensure that the LTC and associated works take these into account.	Thurrock Environment & Highways Tilbury Port (Forth Ports) Association of South Essex Local Authorities (Local Plan)	Tilbury Port (Forth Ports) Association of South Essex Local Authorities	LTC require better understanding of emerging local plan. See item 1 re: presentation to MHCLG, DfT	Passive provision can be explored for junctions at Ockendon and Tilbury but is subject to local plan outcomes	Included in item 1 above.

11	Meet requirements of NPSMN para 4.31 "A good design should meet the principal objectives of the scheme by eliminating or substantially mitigating the identified problems by improving operational conditions" (i.e. @Dartford) "and simultaneously minimising adverse impacts. It should also mitigate any existing adverse impacts wherever possible, for example, in relation to safety or the environment. A good design will also be one that sustains the improvements to operational efficiency for as many years as is practicable, taking into account capital cost, economics and environmental impacts."	Scheme development & design	Transport	7	Before DCO	YES	YES		To eliminate or substantially mitigate the identified problems by improving operational conditions and simultaneously minimising adverse impacts.	Thurrock Environment & Highways Natural England Environment Agency Historic England Woodland Trust Essex Wildlife Trust Thames Chase Trust (Community Forest) Forestry Commission RSPB	HE Strategic Design Panel	LTC agree with this		Included in item 2 above.
12	New 'East Facing Slips' on and off slips at the A13 Lakeside junction to cater for traffic to/from the east to be designed prior to submission of DCO and commissioned prior to start of LTC	Mitigation	Transport	5	Before DCO	YES	YES		To reflect the significant and continued growth across the network, improving journey times and access to the strategic network.	Thurrock Environment & Highways DfT Highways England	Jackie Doyle Price MP (Thurrock) SoS	This is not in the gift of LTC at the moment. Thurrock are looking for different sources of funding. Amelia ??? at HE is aware and has commented. LTC to share information on their option studies and Thurrock to share information on A13 upgrades.	Funding announced at the Conservative Party Conference to bring this forward. Will be independent of LTC	Being carried out separately from LTC. Work underway.
13	Commission detailed feasibility studies to: a) multi-modal assessment of current and future enhanced transport network capacity – to include highways, bus & coach, railways, walking and cycling networks at Tilbury, Grays and Purfleet b) To actively safeguard through the tunnel and at portals for rail, light rail and bus that may be required over the 150 year projected lifespan. c) To identify for each mode the best way in which modes could integrate with existing and improve public transport and the safeguarding (IB) and creation of appropriate multi modal hubs d) understand how best the scheme could meet freight and logistics demand (including consideration of enhanced rail freight opportunities) e) Alternative tunnel bore dimensions and gradients to be actively considered to safeguard freight. f) Parkway Stations where the new link crosses any existing rail line. To be considered by Multi Modal Working Group to be set up including representatives of host local authorities, TL (where appropriate) and HE/LTC.	Scheme Development & Design	Transport	5	Before DCO	YES	YES	YES	To provide enable development growth and improved accessibility for non-car travel; to provide road travel choice options, reducing social isolation, providing opportunities for physical activity and future-proofing the scheme.  To provide real travel choice options, reducing social isolation and future-proofing the scheme	Thurrock Environment & Highways (all) (a) Highways England (b) Thames Estuary Growth Commission; C2C (Train operating Company, TOC); bus operators (c) C2C; bus operators (d) Tilbury Port; DP World; Road Haulage Association; Rail Freight Operating Companies (FOCs) (e) Network Rail; HE, DfT (f) C2C	Thames Estuary Growth Commission – potentially via Professor Sadiq Morgan	LTC to set up multi modal task force and requested Thurrock's input. Work needs to be undertaken on this asap.	to be discussed at HE technical meeting	Transport issues included in schedule of planned HE technical meetings  To incorporate output from item 9
14	Bus priority schemes to be identified and delivered across Thurrock to encourage mode shift towards bus, improve service reliability and enhance capacity, including consideration of links to existing Kent Fasttrak bus rapid transit. Develop interchange and service options for express and commuter coach services. To be considered by Transportation Steering Group to be set up including representatives of host local authorities, TL (where appropriate), and HE/LTC.	Mitigation	Transport	5	Before DCO	YES	YES	YES	To encourage a mode shift towards bus and to improve bus reliability, to contribute towards mitigating the impact of the scheme on local congestion	Thurrock Environment & Highways Bus operators Fast Track Steering Group (Kent County Council, Dartford Borough Council, Gravesham Borough Council, Ariva, Land Securities, ProLogis, Department for Transport, Ministry of Housing Communities and Local Government) Coach operators	Bus operators?	See item 13	to be discussed at HE technical meeting	See item 13 - included in agenda
15	To establish a detailed micro simulation modal incorporating the current crossing and LTC to assess the impacts of the scheme on local roads and impacts on severance, and pedestrian delay and amenity. Modelling working group to consider.	Assessment	Transport	7	Before DCO	YES	YES		To reduce the impacts of the scheme on social isolation and to encourage active travel.	Thurrock Environment & Transportation HE	DfT	Modelling working group will be cover this.	to be discussed at HE technical meeting	See item 9 - included in agenda
16	Ensure that the route for the Thames Estuary section of the England Coastal Path is protected and remains open during any works. On completion to upgrade that section of the Coastal Path. Public Rights of Way Working Group will be convened by HE/LTC.	Mitigation	Transport	7	Before construction	YES	YES		To provide access to the estuary and to encourage active travel.	Thurrock Rights of Way Ramblers Association	DfT HE Strategic Design Panel	LTC note this. Public Rights of Way working group will be convened.	to be discussed at HE technical meeting	Included as part of local plan and transport and access agendas at HE technical meetings  AE meeting with HE legacy/benefits team
17	To the satisfaction of the Steering Group to create a proactive Public Rights of Way Improvement Plan that identifies suitable mitigation for impacts on severance, and pedestrian/cyclist delay and amenity a) Haul routes to be chosen on the basis of long term PROW legacy b) Restore all existing PROW affected / closed / made unusable. Reinstated to at least 3 metres wide as part of an agreed strategy of network restitution and HE to formally accept such PROW enhancements as a core part of their project. c) Existing rights of way within the borough to be upgraded (including surfacing improvements and lighting where appropriate) and converted to bridleways and cycle tracks. d) HE to lead the creation of new connections / links to and between public rights of way, public open spaces and communities that are currently poorly connected within Sin of the new route and commit to initiatives that enhance active travel following the many years of expected PROW closures during construction. HE's Designated Funds could potentially be used to achieve this mitigation.	Mitigation	Transport	7	Before DCO	YES	YES		To reduce the impacts of the scheme on social isolation and to encourage active travel.  To enhance access to green space, encourage sustainable travel choices and physical activity, and facilitate better access to the countryside for health and wellbeing.	Thurrock Rights of Way Ramblers Association British Cycling Sustrans	Ramblers Association Sustrans HE Strategic Design Panel	As 16. This is a potential opportunity for designated funds.	Severed rights of way will be reconnected as confirmed in consultation. The detail of that will be discussed as part of the ongoing design work. Officers have had discussions with HE about designated funds and are coming up with a list of schemes across the Borough where funds could be applied to deliver improvements	See item 16 - included in agenda
18	Funding for Borough Wide Personalised Travel Planning (PTP) for pre and post scheme delivery. To be considered further through Multi Modal Working Group.	Mitigation	Transport	7	Before construction & on opening	YES			To mitigate the effects of the scheme through community severance and to promote active travel	Thurrock Environment & Transportation Thames Estuary Growth Commission	Thames Estuary Growth Commission DfT	LTC have not reviewed this. To be discussed at Transportation Steering Group. Potential DfT funding.	to be discussed at HE technical meeting	See item 13 - included in agenda
19	Current Crossing to be re-designed as world class Intelligent Transport System (ITS) covering Thurrock, Dartford and Gravesham. This would be 24/7 approach to managing an integrated SRN, MRN and LRN network. ITS to become live and dynamic and a new partnership between the three Highways Authorities of HE, Thurrock and Kent to have a shared & integrated network management role in network flow management to make best use of the current crossing, manage the impacts of construction traffic, and safeguard the risk of LTC simply spreading congestion.	Mitigation	Transport	6	Before DCO	YES	YES	YES	To better manage the network and improve connections between places, reducing congestion and associated pollution, improving productivity.	Thurrock Environment & Transportation Thames Estuary Growth Commission	Thames Estuary Growth Commission	This is on LTC agenda but need to get HE on board. JA – idea is to have a full single control centre for Dartford Crossings, LTC and road north and south of the river.	Need to identify Thurrock officer to progress outwith LTC	Included in operational effects HE technical meeting schedule
20	To develop options for the upgrade or removal of level crossings within the Borough, particularly West Tilbury (Station Road) and East Tilbury (Princess Margaret Road).	Mitigation	Transport	3	Before opening	YES	YES	YES	To improve safety and improve connectivity. To mitigate the increased severance effects of the LTC.	DfT Office of Road and Rail (ORR) Network Rail (NR) C2C FOCs	ORR NR DfT	LTC are already in discussion with NR about West Tilbury level crossing but not East Tilbury. Need to confirm whether East Tilbury is in scope on basis of whether the LTC affects the road network.	East Tilbury not within scope but some form of passive provision could be provided to support a new crossing in the local plan	See item 1 - included in agenda

21	To develop solutions to improve north south line capacity on the Ockendon Branch Line, through double tracking or additional passing places.  To be considered further at Multi Modal Working Group.	Mitigation	Transport	3	Before opening	YES	YES	To improve rail connections and capacity within Thurrock, and further afield to London.	DfT NR CZC	CZC DfT	This is outside LTC remit but will discuss with NR and DfT. This should be discussed further at multi modal workshop [post meeting note: should NR be invited to this workshop?].	Need to identify Thurrock officer to progress outwith LTC	See item 13 - included in agenda
22	HE to undertake the following: a) An assessment of Thurrock's Natural Capital to identify the baseline. Thurrock would be seeking a net gain of natural capital based on predict direct, indirect and cumulative impacts of the proposal. b) Preparation of a comprehensive green and blue infrastructure strategy to consider Urban Greening Factors and results of the natural capital assessment. c) Prepare a local Natural Capital Strategy, utilising locally derived urban greening factors, & establish an 'Environment & Carbon Bank' to distribute funds locally for offsetting impact & providing benefits to the environment.  These should be considered as part of a comprehensive package of benefits, not in isolation.	Mitigation	Environment	5	Before DCO	YES	YES	To adequately identify the natural capital value of the Borough prior to assessment of impact of the proposed scheme.  To determine the nature of impacts and agree a palette of interventions that might be applied to each of the specific location areas.  To restore the natural habitats of the area.  Evaluate and capture the economic benefits for investment into natural assets, including offsetting development impacts locally.	Thurrock Environment & Transportation (AII) (a) Natural England, Environment Agency, Essex Wildlife Trust  (b) Natural England  (c) The Environment Bank	Natural England?	This will be covered at the Open Space, Green Infrastructure planning policy meeting. SP emphasised the need for the package of benefits to be comprehensive and not each workstream being considered in isolation.	This work is progressing as part of the local plan studies	See item 1 - included in agenda
23	A Thurrock Zero Emission Strategy with transition to electric vehicles by 2030 to reduce local scale pollutant concentrations based on a HE/DfT funded scrappage scheme to ensure that all vehicles registered within Dartford, Gravesham and Thurrock.  A Low Emission Strategy for construction, requiring the latest emission standards to be used for construction vehicles and non-road mobile machinery. Electric vehicles should be used for materials deliveries and transport of the workforce across the construction area.  HE's Designated Funds could potentially be used to achieve this mitigation.	Mitigation	Environment	5	Before Scheme Opening	YES	YES	To ensure that the project contributes to "An Improved Environment" in accordance with HE's overarching strategic outcome, where its activities ensure a long term and sustainable benefit to the environment.	Thames Gateway Growth Commission Thurrock EHOs	Thames Gateway Growth Commission	LTC are looking into this. Electrical hook ups are part of HE requirements. Possibility of using designated funds for innovation over and above this. NG are considering similar issues – may be benefit in a discussion.	Need to be careful with progressing this in light of the MRA in East Tilbury and the surplus TBM power supply	AE meeting with HE legacy/benefits team
24	To incorporate into the design non-traditional construction design (e.g. plastics, vibration energy generation materials) and low-noise wearing course and bonded sub bases to create a solid carriageway that will provide the quietest possible wheel/road interface.	Mitigation	Environment	5	Before DCO	YES	YES	To minimise noise pollution generated by the scheme, and associated effects on health and wellbeing, and generate energy from the scheme.	Thurrock EHOs HE consultants	HE Strategic Design Panel	LTC view need to be mindful of materials life cycle but materials being reviewed by	to be discussed at HE technical meeting	Included in construction and logistics HE technical meeting schedule
25	In line with Central Government's A Green Future: Our 25 Year Plan to improve the Environment, and HE's own Strategic Outcome "An Improved Environment – where our activities ensure a long term and sustainable benefit to the environment" deliver benefits to the environment and demonstrate how the scheme will achieve those benefits.	Assessment	Environment	7	Before DCO	YES	YES	To ensure that scheme can contribute positively to the environment and leave a positive legacy.	Thurrock Environment & Transportation HE corporate DfT	DfT SOS	LTC – covered by other points	will form part of the ES	AE meeting with HE legacy/benefits team
26	To undertake a detailed review of the ambition to return significant areas within the Mar Dyke to wetland. This would remove the current priority to dredge the watercourse in favour of more modest and natural water management interventions. HE should identify, in line with national planning policy, how Mar Dyke re-wetting and wider LTC scheme will not increase flood risk. Provide details to demonstrate that local pluvial/surface water flow routes are not obstructed and therefore there will be no local increase in flood risk as a result. The scheme should seek to reduce the residual risk of flooding in areas that benefit from flood defences. Information should be provided to show that the proposals will not alter the character, water quality, and habitat in marshes and wetlands, unless otherwise agreed with Thurrock. HE to develop beyond catchment water cycle strategy.	Assessment	Environment	7	Before DCO	YES	YES	To remove the visual intrusion of an elevated motorway.  To safeguard local communities.  To allow assessment of the potential impacts on flood risk.  To allow the environmental impacts to be properly determined.  Establish potential water connectivity between north and south of the river Thames to manage future potable water stress due to climate change and growth.	Thurrock Environment & Transportation  Natural England Environment Agency Essex Wildlife Trust RSPB	Natural England Environment Agency RSPB	LTC – this is being reviewed. The extended development boundary along the Mar Dyke takes this into account. Discussions are being held with EA re requirement for dredging.	to be discussed at HE technical meeting. More detail will be provided in the ES	Included in items 5 and 27
27	Provide detail on the SUDS that are proposed to support the scheme. SUDS are required to be designed as part of an overall green-blue infrastructure strategy for the scheme. Designs to be shared by LTC with Thurrock Council when available.	Mitigation	Environment	5, 7	Before DCO	YES	YES	To allow assessment of the potential impacts on flood risk, bio diversity, groundwater and surface water quality etc. To minimise landscape, visual and biodiversity impacts.	Thurrock Environment & Transportation Environment Agency	Environment Agency	LTC – SUDS included in designs. Will share with Thurrock when available. AE asked when – LTC responded timescale TBC.	to be discussed at HE technical meeting	Included in items 1 and 5. Technical elements included as water resources in schedule of HE technical meetings
28	Determine the scheme impacts on groundwater by conducting hydrogeological risk assessments that assess both short-term (during construction) and long-term (during operation) impacts including potential effects on groundwater flow, groundwater level, groundwater abstractions, baseflow to watercourses and groundwater quality (contamination from brownfield sites and landfills etc along the route).	Assessment	Environment	7	Before DCO	YES	YES	To allow the impacts on groundwaters, flood risk, water resources (quantity and quality) to be identified, design remediation or mitigation and to provide baseline data for an ES Chapter on Groundwater	Thurrock Environment & Transportation Environment Agency	Environment Agency	HE – all relevant assessment being undertaken for the ES.	Will form part of ES	See item 27 - included in agenda
29	Provide details to demonstrate that the scheme is compliant with the Water Framework Directive. The majority of the nearby water bodies are 'moderate'.	Assessment	Environment	7	Before DCO	YES	YES	To allow assessment of the potential impacts surface water quality.	Environment Agency	Environment Agency	LTC – WFD assessment being undertaken as part of DCO application.	Will form part of the ES	See item 27 - included in agenda

30	<p>Landscaping bunds with native planting, which are in keeping with or provide enhancement of local landscape character, and/or green acoustic screening to feature at all locations to be agreed with the local community.</p> <p>The development boundary must be at least 1 kilometre in width to ensure that there is 500 metres either side of the centre of the road to accommodate all the landscaping requirements put forward (e.g. cut and cover), and secure relevant landowner agreement.</p> <p>Within the 1 km corridor look at opportunities for habitat creation/ improvement appropriate to the landscape character, through alliance with Essex Biodiversity project. This should include habitat features for rare invertebrates and hornet robbery.</p> <p>As set out in item 5 above, this 1km buffer would allow the provision of substantial mitigation, where required for natural resources and receptors. It would assist the project to "improve health and environment" (HE Corporate Strategy, Outcomes) and to ensure that LTC is adequately screened for the new development being proposed in the emerging Thurrock Local Plan.</p>	Scheme Design & Development	Environment	5	Before DCO	YES	YES	HE to demonstrate "good design in terms of siting and design measures relative to existing landscape and historical character and function, landscape permeability, landform and vegetation" MSPN para 4.3.4. To provide enhancement of local landscape character, minimise visual impact and reduce noise and offset LTC carbon impacts. To minimise adverse visual and landscapes / enhance biodiversity character; to provide biodiversity connections enhancement and to maximise the psychological benefits of obscuring views of noise sources.	Thurrock Environment & Highways Natural England Environment Agency Woodland Trust Essex Wildlife Trust Thames Chase Trust (Community Forest) Forestry Commission RSB	HE Strategic Design Panel	LTC – want to discuss the landscaping mitigation and place setting. AE stated that the proposals need to include the local community and that the local authority should be discharging the requirement.	see previous answer about 1km boundary. This needs to be changed	See item 5 - included in agenda
31	<p>Provision of substantial new woodland areas along the length of the route to be designed within the 1km boundary and be in keeping with or to provide enhancement of local landscape character and in accordance with landscape and green infrastructure strategies. To create a legacy corridor of mitigation for the LTC and to link with adjoining disparate woodlands and to dedicate in the millions of new trees and diversified habitat towards the Queens Governmental Campus project. HE to identify and lead substantial areas of tree and woodland planting and diversification of the Mar Dyke as wetland habitat. The land would be accessible to the public and create new and extensive rights of way. Where ecologically appropriate, to create and manage in perpetuity woodland belts, to remove large particle air pollutants. Air quality amelioration woodlands, require a minimum 30 metres depth and appropriate management to function effectively. 1,000 metres</p>	Scheme Design & Development	Environment	5	Before DCO	YES	YES	HE to demonstrate "good design in terms of siting and design measures relative to existing landscape and historical character and function, landscape permeability, landform and vegetation" MSPN para 4.3.4. To mitigate the impacts of the scheme. To minimise visual impact and noise pollution of the scheme on local communities. To provide enhancement of local landscape character. To offset LTC carbon impacts and to improve visually blighted areas of the Borough. To minimise landscape and visual (adverse) impacts and provide enhancement to local landscape character, improve biodiversity & reduce the visual and landscape impact of the scheme; and to contribute to cleaner air.	Thurrock Environment & Highways Natural England Environment Agency Woodland Trust Essex Wildlife Trust Thames Chase Trust (Community Forest) Forestry Commission RSB	Thames Chase Trust?	LTC – elements of woodland are included in the mitigation. This will be for further discussion at the Open Space, Green Infrastructure planning policy meeting.		See item 5 - included in agenda
32	<p>Cut and cover design options prepared and costed for all sections of the route close to existing or proposed communities. The distinct business case for each option to be made available at a point where Thurrock can genuinely influence Ministerial discussions. Deep cut and false cutting options at all sections of the route close to existing or proposed communities, and for areas of significant visual impact or noise pollution. These features must enhance local landscape character and be in accordance with Thurrock landscape / green infrastructure strategies. Where additional tunnelling is not proposed (e.g. green bridges) the emphasis should be on ensuring that the design is the best it can be.</p>	Scheme Design & Development	Environment	5	Before DCO	YES	YES	To mitigate the landscape and visual impacts of the scheme. To reduce the severance effects of the scheme. To reduce the effects on the natural environment and biodiversity of the scheme.	Thurrock Environment and Transportation HE consultants DfT SoS	DfT SoS	LTC will look at alignment before engaging in a discussion with Thurrock. Green bridges are being considered where there are communities near-by but no additional tunnelling. AE stated if the scheme is not tunnelling then this puts more emphasis on ensuring that the scheme design is the best it can be.	to be discussed at HE technical meeting	See item 5 - included in agenda
33	<p>Design a viaduct across the Mar Dyke that seeks to more closely follow the profile of the land, with green bridges to accommodate public rights of way crossing the route. Columns of viaduct / bridges designed as vertical gardens / green columns (e.g. Mexico City's Via Verde project, which uses vertical gardens using a hydroponic rainwater system, on highway pillars). Provide green bridges crossing the route to cater for both public rights of way and habitat linkages. Columns of viaduct / bridges designed as vertical gardens / green columns</p>	Scheme Design & Development	Environment	5	Before DCO	YES	YES	To reduce the visual and landscape impact of the scheme; and to contribute to cleaner air.	Thurrock Environment and Transportation HE consultants Essex Wildlife Trust Thames Chase Trust (Community Forest)	HE Strategic Design Panel	LTC is looking at the design of the Mar Dyke viaduct- see item 26.	to be discussed at HE technical meeting	See item 5 - included in agenda
34	<p>Identify the impacts of the scheme on the Environment Agency's large flood storage area which comes under the Reservoirs Act 1975 in Tilbury.</p>	Assessment	Environment	5	Before DCO	YES	YES	The works could impact on the reservoir both in terms of its operation and stability, but also in terms of the category and thus standards that it must meet, which may necessitate works to update the reservoir.	Environment Agency	Environment Agency	This is being considered by LTC flood team.	to be discussed at HE technical meeting	See item 27 - included in agenda
35	<p>HE to undertake renewable energy generation development strategy. HE to consider innovation/ research funding for concepts and ideas coming forward, with a view to considering use of Designated Funds for implementation.</p>		Environment	7	Before DCO		YES	Ensure adequate provision of locally derived renewable power for the conversion of vehicles to electric power	Thames Gateway Growth Commission UKPN	Thames Gateway Growth Commission	This is not in LTC scope, notwithstanding earlier comments re: electric charging. This is not currently on the agenda but if concepts and ideas to share then potentially innovation/research funding, with a view to designated funds for implementation.	Thurrock to consider how to take this forward	Not in LTC scope
36	<p>Ensure that all identified and likely archaeology resources, built heritage, and scheduled monuments, including those from 20th century, affected are subject to full and detailed recording</p>	Mitigation	Environment	7	Before DCO		YES	To ensure that cultural and historical records can be fully maintained.	Historic England Essex Place	Historic England	LTC – this will be included in ES and relevant Requirements.	to be discussed at HE technical meeting	Technical elements included as landscape and heritage in schedule of HE technical meetings
37	<p>Ensure that a Construction Environmental Management Plan or a Code of Construction Practice will be prepared to provide a management framework for the construction works being undertaken. The CoCP or CEMP should be supplemented by a DCO Requirement a Local Environmental Management Plans post Order that will subject to discharge by the local planning authorities.</p>	Mitigation	Environment	7	Before DCO	YES	YES	Mitigate the construction impacts associated with the scheme.	Thurrock Environment & Transportation Other affected local authorities – Gravesham Borough Council, London Borough of Havering, Brentwood Council, Medway Council, Kent County Council, Essex County Council Environment Agency Port of London Authority	HE will be preparing anyway. Content to be influenced by Thurrock, other affected local authorities, EA, POLA etc.	LTC – will engage in due course, TBC if CoCP or CEMP.	will be provided in due course - when?	Included as item under construction and logistics and EHO HE technical meeting schedule

38	Undertake a power and grid network study to identify how the scheme could incentivise a mode shift from petrol/diesel vehicles to electric vehicles. Modal shift issues to be considered through the Multi Modal Working Group.	Assessment	Environment	5	Before construction	YES	YES	To ensure the relevant infrastructure is in place to enable the transition towards electric vehicles, and reduce dependency on petrol/diesel vehicles, thereby reducing air pollution and climate change impacts and human health impact.	Thames Gateway Growth Commission UKPN	Thames Gateway Growth Commission	LTC – this should be considered in the multi modal working group.	need to be careful about this given the MRA and the power supply	Combine with items 13 and 23	
39	Establish a smart air quality monitoring network* to monitor pollutants to evidence a reduction of pollutants at local significant centres of activity that increase the overall local background level of emissions (both CO2 & particulates).  * Smart air quality monitoring provides real time data to air quality specialists at local authorities and HE for immediate analysis, as well as to local businesses and residents. It could for example allow automatic air quality alerts to be sent to local residents to warn about poor air conditions, or to VMS or connected vehicle technology to restrict the speed or numbers of petrol or diesel engine vehicles on specific routes.	Mitigation	Environment	7	Before opening	YES	YES	To monitor and improve air quality within the Borough and reduce the cumulative impact the that scheme will have.	HE Thurrock EHOs	Thurrock EHOs	LTC undertaking a suite of monitoring. Need to understand what "smart monitoring" would mean. Can Thurrock confirm what this is intended to mean?	Thurrock to confirm meaning	Included as item in EHO HE technical meeting schedule	
40	To investigate opportunities to restore historic minerals and landfill sites to a suitable condition to enable their use for recreation, habitat creation and agriculture, as part of an integral green infrastructure strategy and which is in keeping with, or enhances, local landscape character. Thurrock Council will identify potential sites available for reuse, for example Goshem's Farm.	Mitigation	Environment	7	Before construction	YES	YES	YES	To provide new green space and farmland, reducing the impact of the scheme on ecology, open space and water resources, and enhance health and wellbeing.	Thurrock Environment and Transportation EA Land owners	EA?	LTC – minerals will be one of the subjects of the planning policy discussion 11/7/18 LTC will be bringing forward some proposals re: landfills they affect. LTC are producing an arisings strategy. If there are sites available for reuse that Thurrock have in mind please could these be communicated. Steve Plumb mentioned Goshem's Farm as on potential site.	Thurrock has provided information on this. To be discussed again at a HE technical meeting	See item 5 - included in agenda
41	Upgrade existing landscaping which is identified by Thurrock Council as being of lower quality. Develop a strategy for the innovative, creative and sustainable use of soil arisings for landscaping, e.g. creation of land art features for placemaking, to enhance local landscape character. Provide landscape art features at agreed 'gateways' to encourage countryside access / visitors.	Mitigation	Environment	7	Before opening	YES	YES	To enhance public green space and local landscape character, encouraging physical activity and access to green space for health and wellbeing, and offsetting the negative visual impact of the scheme. Attract visitor economy.	Thurrock Council Environment Agency Visit Essex	Thurrock Council?		Thurrock to identify the landscaping referred to and discuss with HE at a technical meeting	See item 5 - included in agenda	
42	Improve the Two Forts Way walking route between Tilbury Fort and Coal House Fort. To be considered by Public Rights of Way Working Group.	Mitigation	Environment	7	Before opening	YES	YES	To improve access to heritage features and encourage active travel.	Thurrock PROW Historic England Essex Place Ramblers Association	Historic England Ramblers Association	As 16. (PROW working group to be convened).	progress to be discussed	Combine with item 16. See item 5 - included in agenda	
43	Create a green link to deliver a biodiversity corridor connecting the riverfront to Thurrock's green belt hinterland, as a 'Living Landscape' (Essex Biodiversity Project initiative).	Mitigation	Environment	7	Before opening		YES	To improve biodiversity and access to green space.	Thurrock Environment & Transportation Natural England Environment Agency Woodland Trust Essex Wildlife Trust Thames Chase Trust (Community Forest) Forestry Commission	Natural England	LTC – to be picked up as part of the planning policy discussion 11/7/18	to be actioned as this was not picked up	See item 5 - included in agenda	
44	Achieve BREEAM or CEEQUAL Outstanding or other equivalent method of sustainability assessment (LTC to confirm).	Scheme Development & Design	Environment	7	Before opening		YES	Prove HE intentions on meeting it's sustainability policy through completion of environmental accreditation.	HE & consultants	HE Strategic Design Panel	LTC – not using either BREEAM or CEEQUAL. Using a bespoke method. LTC to provide details.	to chase for details	To be picked up in agenda in discussion on construction and logistics	
45	Implement a Zero waste target for the project.	Scheme Development & design	Environment	7	Before opening		YES	YES	Meet government objectives on diversion of waste to landfill.	Environment Agency	Environment Agency	LTC are using the waste hierarchy as part of their project development.	To be picked up in agenda in discussion on construction and logistics	
46	Skills, local economy and social value commission is convened to: a) Specific the nature and type of jobs required for LTC and the training needs to ensure local labour market can access the majority of jobs through apprenticeships and adult training and education facilities. b) Identify how to create a transport and logistics centre of excellence and advanced manufacturing centre in Thurrock c) To maximise existing and create new local supply chains including how Thurrock might become the 'off site' construction hub for national projects. d) Facilitate the creation of a transport and logistics centre of excellence and advanced manufacturing centre in the borough e) Develop a proactive Tourism and Recreation Strategy to mitigate the adverse impacts of the scheme There are opportunities for these issues to be included in O&M contract to ensure embedding in the project. Further discussion with LTC required.	Mitigation	Skills, local economy and social value	1	Before DCO	YES	YES	YES	To fully understand the potential for locally sourced labour. To ensure that the scheme positively impacts local communities in terms of skills and economy.  To facilitate locally sourced material and plant, reducing environmental impacts from transporting goods and improving Thurrock's economy.  Identify how LTC and can establish and contribute to tourist economy, especially relating to historical and natural assets.	Thurrock Council South East Local Enterprise Partnership (SE LEP) Thurrock Business Board Tilbury Port DP World Local business groups	SE LEP Specific business led Thurrock proposition – via Thurrock Business Board?	LTC – as per item 3. LTC indicate there are opportunities for further discussions.	to be discussed at HE technical meeting  Agenda item for HE's Local Authority Forum	
47	HE's procurement strategy should: a) Ensure that materials, labour and plant are all subject to local skills charter and procurement, with onus on the developer and contractor to choose local procurement where at all possible, and provide full justification if it is not. b) Require skills and employment plans to be created, requiring a certain number of apprenticeships to be created (e.g. 1 Thurrock apprentice for every 20 employees across the duration of the construction period) c) Require 3 monthly monitoring reports to be produced by developer and contractors to indicate the % of those recruited, employed, engaged or hired who live within the borough, and details of number of apprentices. There are opportunities for these issues to be included in O&M contract to ensure embedding in the project. Further discussion with LTC required.	Mitigation	Skills, local economy and social value	1	Before DCO	YES	YES	YES	To ensure that the scheme positively impacts local communities in terms of skills and economy.  To facilitate locally sourced material and plant, reducing environmental impacts from transporting goods and improving Thurrock's economy.  To reduce the need to travel for construction workers and to ensure that the provision of accommodation does not conflict with the Council's housing strategy.	Thurrock Council South East Local Enterprise Partnership (SE LEP) Thurrock Business Board Tilbury Port DP World Local business groups	SE LEP Specific business led Thurrock proposition – via Thurrock Business Board?	LTC – as per item 3. LTC indicate there are opportunities for further discussions.	to be secured through s106 or requirements  Combine with item 47	
48	HE should undertake a full assessment to understand how future network changes can support economic benefit to Thurrock, and to help inform how and where new housing could be allocated, and any negative impacts of the LTC on housing supply. To be discussed as part of the Modelling Working Group.	Assessment	Skills, local economy and social value	1	Before DCO		YES	YES	To ensure that Thurrock is able to develop its Local Plan taking into account the potential impacts of the scheme.	Thurrock Council Association of South Essex Local Authorities	Thurrock Council	LTC – this can be in the transport this can be in the transport modelling working group	to find out when this will take place	Combine with items 1 and 9

49	HE to fully study where material can be re-used for the benefit of Thurrock, to include consideration of when the market might be 'swamped' with other material from cumulative scheme and identify the specific sources for materials and detailed construction impacts of these. Thurrock Council to identify potential materials and sites.	Mitigation	Skills, local economy and social value	1, 7	Before DCO	YES		To ensure that environmental impacts are fully assessed.	Thurrock Environment & Transportation Environment Agency South East LEP Local businesses RSPB	Thurrock Environment & Transportation	LTC – to be picked up as part of the planning policy discussion 11/7/18 Thurrock to suggest potential sites.	Thurrock has provided sites to HE. To be discussed again at HE technical meeting	Combine with items 1 and 40	
50	Provision of public art through innovation in construction design, including 'acoustic roads', use of soil arisings for land art features, and sculptures at key landscape 'gateways'.	Scheme development & design	Skills, local economy and social value	1, 7	Before DCO	YES	YES	YES	Create tourist attraction to generate revenue. Offset visual and landscape impacts.	Thurrock Council Design Council	HE Strategic Design Panel	LTC will review this as part of their design and landscape design narratives.	to be discussed at HE technical meeting	See item 5 - included in agenda
51	HE should establish a community investment vehicle to share benefits of LTC.	Mitigation	Skills, local economy and social value	1	Before DCO	YES		YES	Provide a community investment vehicle for local residents to benefit from long term revenue of LTC.	Thurrock Council Thurrock Regeneration	Thurrock Council	LTC – there is a benefits legacy intended, investing the income stream from tolling.	to be discussed to understand the benefits workstream and process	AE meeting with HE legacy/benefits team AE meeting with HE legacy/benefits team
52	A detailed construction-phase travel plan to ensure the supply chain fully utilises purpose-built on-site accommodation and minimises daily trips and long distance commuting. Develop an accommodation strategy involving at least 1,000 units for construction worker in the local area, working with the Council to ensure that the location and type of accommodation is suitable and must leave a positive social housing legacy. To be discussed further between LTC and Thurrock Council in the context of the emerging Thurrock Local Plan.	Mitigation	Skills, local economy and social value	1	Before construction	YES	YES	YES	To reduce the impact of the scheme on emissions and congestion, and to improve worker wellbeing.	Thurrock Environment & Transportation Thurrock Housing Homes England Thurrock Regeneration	Thurrock Environment & Transportation Thurrock Housing	LTC – travel plans will be prepared for the project. LTC are preparing their accommodation strategy, and have started considering numbers but it is early days. LTC are happy to have further discussions on this. Examples, e.g. Hinkley and Wylfa. The exchange of local plan information will help to inform this.	to be discussed at HE technical meeting	Included in agenda in discussion on construction and logistics HE technical meetings
53	To embed the principles of the Social Value Act to work with the local supply chain on direct opportunities flowing from LTC and that these will form the basis of developing expertise as a national centre for off-site manufacture.	Mitigation	Skills, local economy and social value	1	Before construction	YES	YES	YES	To facilitate locally sourced material and plant, reducing environmental impacts from transporting goods and improving Thurrock's economy.	South East Local Enterprise Partnership (SE LEP) Thurrock Business Board Tilbury Port DP World Local business groups Port of London Authority	SE LEP Specific business led Thurrock proposition – via Thurrock Business Board?	LTC – will review further as part of the social value discussions (as per item 3)	to be discussed at HE technical meeting	Included in agenda on construction and logistics HE technical meetings AE meeting with HE legacy/benefits team
54	HE to prepare a Data Infrastructure Strategy to ensure provision of world class ICT infrastructure for the project that can then be used to roll out provision across the Borough. This should consider emerging vehicle to vehicle (V to V) and vehicle to infrastructure (V to X) technology such as that being trialled by HE on the A2/JM2.		Skills, local economy and social value	1	Before opening	YES	YES	YES	Meet aspirations of NPSNN para 4.32 to "consider the role of technology in delivering new national networks projects". Road network will require advanced telematics as part of network management. This should be the spring board for developing an area wide telematic networks (such as LoRa) to coordinate all data transfer (air quality, noise, movement etc). Create 'superfast data highway'.	Thames Gateway Growth Commission	Thames Gateway Growth Commission	LTC – connected to the modelling working group. Need to pick up emerging V to V (Vehicle to vehicle) and V to X (vehicle to infrastructure) technology	to be discussed at HE technical meeting	Combine with item 13