

From: [Alexandra Dillistone](#)
To: [Thanet Extension](#)
Cc: [REDACTED]
Subject: RE: Thanet Extension Offshore Windfarm - Port of London Authority and Estuary Services Limited - Deadline 1 (email 2 of 3)
Date: 15 January 2019 23:47:09
Attachments: [image001.png](#)
[image002.png](#)
[PLA and ESL - Responses to ExO1.pdf](#)
[PLA and ESL - Response to further information requested by the ExA \(resp....pdf\)](#)

Dear Kate,

Further to my email below: email 3 of 3

Kind regards,

Alex

Alexandra Dillistone
Partner

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From: Alexandra Dillistone
Sent: 15 January 2019 23:45
To: 'ThanetExtension@pins.gsi.gov.uk'
Cc: [REDACTED]

Subject: RE: Thanet Extension Offshore Windfarm - Port of London Authority and Estuary Services Limited - Deadline 1 (email 2 of 3)

Dear Kate,

Further to my email below: email 2 of 3

Kind regards,

Alex

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From: Alexandra Dillistone
Sent: 15 January 2019 23:44

To: 'ThanetExtension@pins.gsi.gov.uk'

Cc: [REDACTED]

Subject: RE: Thanet Extension Offshore Windfarm - Port of London Authority and Estuary Services Limited - Deadline 1 (email 1 of 3)

Dear Kate,

I received a bounceback message from the email below due to the file size limit. I am therefore resending it in three separate emails, of which this is the first.

Kind regards,

Alex

Alexandra Dillistone
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From: Alexandra Dillistone

Sent: 15 January 2019 23:34

To: ThanetExtension@pins.gsi.gov.uk

Cc: [REDACTED]

Subject: Thanet Extension Offshore Windfarm - Port of London Authority and Estuary Services Limited - Deadline 1

Dear Kate,

On behalf of my clients, the Port of London Authority and Estuary Services Limited, please find attached the following documents in respect of Deadline 1:

- 1) Comments on Relevant Representations, submitted jointly on behalf of the PLA and ESL
- 2) PLA Written Representations
- 3) Summary of PLA Written Representations
- 4) ESL Written Representations
- 5) Summary of ESL Written Representations
- 6) Responses to ExQ1, submitted jointly on behalf of the PLA and ESL
- 7) Responses to further information requested by ExA (Hearings Action Points), submitted jointly on behalf of the PLA and ESL

The PLA and ESL are submitting separate written representations but, due to the close alignment of their views on the proposed application, we considered that it would be most efficient for the ExA as well as for the PLA and ESL to submit joint versions of the other documents listed above. The written submissions of the oral case made by the PLA and ESL was submitted on Monday 7 January 2019.

As for Statements of Common Ground my clients are working towards agreeing such statements but, for the reasons explained in the attached, it has not been possible to make sufficient progress

with the Applicant prior to Deadline 1. We are working and will continue to work with the Applicant to identify any areas of agreement in order to agree SoCGs as soon as possible.

For the Accompanied Site Inspections and Issue Specific Hearings, both the PLA and ESL wish to attend the following:

- The ASI (likely to be attended by representative from ESL on behalf of both ESL and the PLA); and
- ISHs 5, 7, (8, if required) and 9, due to their interests in maritime, shipping, navigation and safety and the dDCO.

Kind regards,

Alex

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INFRASTRUCTURE PLANNING
THE INFRASTRUCTURE PLANNING (EXAMINATIONS PROCEDURE) RULES 2010
THE THANET EXTENSION OFFSHORE WIND FARM ORDER

Response to further information requested by the ExA (Responses to Action Points from ISH2) submitted on behalf of the Port of London Authority and Estuary Services Limited

Unique Reference Number	EN010084
Document Ref.	PLA7 / ESL7
Author	Winckworth Sherwood LLP
Date	15 January 2019

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Parliamentary Agents**

The Thanet Extension Offshore Wind Farm Order
Port of London Authority and Estuary Services Limited
Response to further information requested by the ExA (Response to Action Points from ISH2)

#	Action	Party	Response
1	<p>Written Summaries of Oral Submissions</p> <p>All participants of ISH2 are to provide a written summary of their oral submissions, cross referenced as relevant to the matters addressed in this action list.</p>	<p><i>All hearing participants</i></p>	<p>Submitted on Monday 07/01/19</p>
3	<p>Effects on Ports and Harbours</p> <p>For each of London Gateway Port Ltd (LGPL), PoTLL and for other port facilities within the Port of London Authority (PLA) area that concern the PLA, please provide a table with supporting explanatory text showing:</p> <p>a) A port baseline position for the most recent fully reported year in terms of:</p> <ul style="list-style-type: none"> • annual tonnage; • split between bulk tonnage and containers (container traffic is conventionally recorded in Twenty Foot Equivalent Units (TEU)); 	<p><i>Port of London Authority (PLA)</i></p>	<p><u>Annual tonnage</u> The most recent reporting full year for which data is available is 2017. The total tonnage handled within the Port of London in 2017 was 49,868,396 tonnes. Of that total, 8,497,166 tonnes was handled at the Port of Tilbury (PoTLL) (a mixture of bulk cargoes, containers and Roll on Roll Off (Ro Ro) traffic) and 7,082,543 tonnes handled at London Gateway Port (LGP) (containers). Of the remaining 34,288,687 tonnes that was handled at terminals within the Port of London in 2017, 6,820,142 tonnes is unitised (Ro Ro from Purfleet, Dartford and the Ford UK Terminal in Dagenham) and 27,468,545 tonnes is bulk cargoes (both liquid and dry).</p> <p><u>Split between bulk tonnage and containers</u></p> <p>The data is recorded in tonnes; the PLA does not split the unitised cargoes into TEUs as requested by the Panel. Except for PoTLL and LGP, most of the unitised cargoes handled in the Port of London are unaccompanied Ro Ro trailers rather than containers.</p>

The Thanet Extension Offshore Wind Farm Order
 Port of London Authority and Estuary Services Limited
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	a) Forecast growth year by year commencing in 2019 within the reasonable planning time horizon ¹ (intended growth), taking account of organic traffic growth, vessel mix change trends and intended facility build-out that is within the scope of existing consent.		<p>In 2016 the PLA commissioned the Stamford Research Group to undertake trade forecasts for the Port of London (and therefore including all terminals, including Tilbury and London Gateway) to the year 2035 as part of the background to its Thames Vision. This research combined econometric forecasts and field study directly with terminals within the Port to provide high, central and low forecasts and every five years from a base year of 2015.</p> <p>Total traffic (MT)</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th style="text-align: center;">2020</th> <th style="text-align: center;">2025</th> <th style="text-align: center;">2030</th> <th style="text-align: center;">2035</th> </tr> </thead> <tbody> <tr> <td style="text-align: left;">High</td> <td style="text-align: center;">64.9</td> <td style="text-align: center;">75.8</td> <td style="text-align: center;">82.7</td> <td style="text-align: center;">92.7</td> </tr> <tr> <td style="text-align: left;">Central</td> <td style="text-align: center;">59.9</td> <td style="text-align: center;">67.7</td> <td style="text-align: center;">72.7</td> <td style="text-align: center;">79.0</td> </tr> <tr> <td style="text-align: left;">Low</td> <td style="text-align: center;">49.3</td> <td style="text-align: center;">51.3</td> <td style="text-align: center;">53.1</td> <td style="text-align: center;">55.9</td> </tr> </tbody> </table> <p>The same research work also considered, on a comparable forecasting basis, the likely composition of vessels on a comparable timescale and more particularly, vessel numbers by cargo type and</p>		2020	2025	2030	2035	High	64.9	75.8	82.7	92.7	Central	59.9	67.7	72.7	79.0	Low	49.3	51.3	53.1	55.9
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Low	49.3	51.3	53.1	55.9																			

¹ The **reasonable planning horizon** is considered to be up to +35 years from 2019, on the basis that if a Development Consent Order were to be granted for Thanet OWFE, it might have a 5 year commencement and a 30 year operational phase. However, it is accepted that reasonable forecasts or projections beyond eg a +20 year horizon from 2019 may be difficult to obtain and that different organisations adopt different planning horizons. Please explain the basis for the adoption of planning horizons in any forecasts or projections.

The Thanet Extension Offshore Wind Farm Order
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			<p>vessel type shares by %. These tables were based on the Central forecast (see preceding table).</p> <p>Vessel numbers</p> <table border="1" data-bbox="1108 537 1749 1206"> <thead> <tr> <th></th> <th>2020</th> <th>2025</th> <th>2030</th> <th>2035</th> </tr> </thead> <tbody> <tr> <td>Ro Ro</td> <td>2368</td> <td>2326</td> <td>2500</td> <td>2509</td> </tr> <tr> <td>General Cargo</td> <td>2189</td> <td>2553</td> <td>2944</td> <td>3503</td> </tr> <tr> <td>Tankers</td> <td>963</td> <td>858</td> <td>770</td> <td>695</td> </tr> <tr> <td>Dredgers</td> <td>1081</td> <td>947</td> <td>965</td> <td>1029</td> </tr> <tr> <td>Container Ships</td> <td>1009</td> <td>1343</td> <td>1504</td> <td>1731</td> </tr> <tr> <td>Bulk</td> <td>86</td> <td>79</td> <td>71</td> <td>65</td> </tr> <tr> <td>Total</td> <td>7696</td> <td>8106</td> <td>8754</td> <td>9532</td> </tr> </tbody> </table>		2020	2025	2030	2035	Ro Ro	2368	2326	2500	2509	General Cargo	2189	2553	2944	3503	Tankers	963	858	770	695	Dredgers	1081	947	965	1029	Container Ships	1009	1343	1504	1731	Bulk	86	79	71	65	Total	7696	8106	8754	9532
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#	Action	Party	Response				
			Vessel shares (%)				
				2020	2025	2030	2035
			Ro Ro	31	29	29	26
			General Cargo	28	31	34	37
			Tankers	13	11	9	7
			Dredgers	14	12	11	11
			Container Ships	13	17	17	18
			Bulk	1	1	1	1
			Total	100	100	100	100
	b) Additional growth projections within the reasonable planning time horizon (potential growth), arising from any proposed developments currently subject to development consent processes or provided for in strategic plans but not consented (for		See response to 3a above.				

The Thanet Extension Offshore Wind Farm Order
Port of London Authority and Estuary Services Limited
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	any such developments, please identify the stage to which plans have progressed as of 2019, an indicative commissioning and a completion year);		
	c) Intended and potential changes in the vessel traffic mix using the port within the reasonable time horizon;		See response to 3a) above.
	d) Maximum draft of vessels currently able to access the port;		The maximum draft of vessels is tide-dependent, but in the PLA's view, a reasonable maximum draft of vessel would be approximately 16m. In 2018, the maximum draft of vessel which used the port had a draft of 15.8m.
	e) Intended and potential changes in the maximum draft of vessels using the port within the reasonable planning time horizon;		The information available on potential changes to vessels is limited, and it is not possible with certainty to say whether vessels will increase in draft or whether they will simply increase in width, but the trend has been for the maximum draft of vessels using the port to increase and we would expect this trend to continue within the reasonable planning time horizon.
	f) Any capital dredge proposals to deepen existing channels to enable access by deeper draft vessels within the reasonable time horizon and an indicative year at which		The PLA has recently undertaken a Route Option Analysis to determine which channel (Fisherman's Gat/North or South Edinburgh) would be most cost effective to dredge and maintain, and will be undertaking pilotage simulation and sediment transport

The Thanet Extension Offshore Wind Farm Order
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Response to further information requested by the ExA (Response to Action Points from ISH2)

#	Action	Party	Response
	such access might become available;		modelling in the near future. The PLA is committed to taking the proposal forward and would expect to finalise the project in approximately 2 years. The Fisherman's Gat is most likely to be the most cost effective option and, if selected, it is proposed to dredge the Fisherman's Gat to 10m below chart datum, for vessels of routinely up to 12m during higher tides.
	g) Any capital dredge proposals to widen or make new channels to increase capacity, rationalise or reduce the access distance to the port by any vessels within the reasonable planning time horizon and an indicative year at which such access might become available;		See response to 3f)
	h) A statement of the number of ships projected to be diverted per annum where this is alleged to be due to the construction of the Thanet OWFE – provided for a notional base year of 2020 in which the OWFE might commence construction and for subsequent years within the reasonable planning horizon and setting out a basis for the suggested diversion;		The PLA does not currently have the raw data available to make this calculation but is determining to what extent it can supplement its existing records in order to be able to assess the number of ships projected to be diverted.

The Thanet Extension Offshore Wind Farm Order
Port of London Authority and Estuary Services Limited
Response to further information requested by the ExA (Response to Action Points from ISH2)

#	Action	Party	Response
	<p>i) An aggregate analysis of projected additional time and distance required for diverted ships to access the port per annum, where this is alleged to be due to the construction of the Thanet OWFE – provided for a notional base year of 2020 in which the OWFE might commence construction and for subsequent years within the reasonable planning horizon; and</p> <p>[additional time (hours) and additional distance (nm) x ships subject to the restriction (Number)]</p>		<p>The PLA does not currently have the raw data available to make this projection but is determining to what extent it can supplement its existing records in order to be able to analyse the projected additional time and distance required for diverted ships to access the port.</p>
	<p>j) Projected aggregate additional shipping operating costs per annum alleged to be caused by (h) and (i), for the base year and subsequent forecast years within the reasonable planning horizon</p>		<p>The PLA and ESL do not hold data which would allow them to make accurate calculations as to the additional shipping operating costs.</p>
4	<p>Consideration of Thanet OWFE in Tilbury 2 NSIP Application Documents</p> <p>Where any hearing participants refer to shipping traffic forecasts or projections</p>	<p><i>All hearing participants</i></p>	<p>The PLA and ESL note and will comply with this requirement.</p>

The Thanet Extension Offshore Wind Farm Order
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Response to further information requested by the ExA (Response to Action Points from ISH2)

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	<p>taking account of the potential development of Tilbury 2, these are requested to be based on data available in the Tilbury 2 NSIP application document library.</p> <p>Where any hearing participants cite an individual reference within Tilbury 2 NSIP examination document library, please identify the relevant document reference [in square brackets] but appending the prefix T2, document section and/or page number.</p>	<p><i>All hearing participants</i></p>	<p>The PLA and ESL note and will comply with this requirement.</p>
<p>5</p>	<p>Fishermans' Gat</p> <p>Is there a live proposal to capital dredge Fishermans' Gat? If so, from what year would this be operational and to what depth would the channel then be maintained and what would be the maximum draft of vessels using the channel?</p>	<p><i>PLA</i></p>	<p>The PLA has recently undertaken a Route Option Analysis to determine which channel (Fisherman's Gat/North or South Edinburgh) would be most cost effective to dredge and maintain, and will be undertaking pilotage simulation and sediment transport modelling in the near future. The PLA is committed to taking the proposal forward and would expect to finalise the project in approximately 2 years. The Fisherman's Gat is most likely to be the most cost effective option and the project is estimated to cost in the region of £5M. If selected, it is proposed to dredge the Fisherman's Gat to 10m at chart datum, for vessels of routinely up to 12m during higher tides.</p>

The Thanet Extension Offshore Wind Farm Order
Port of London Authority and Estuary Services Limited
Response to further information requested by the ExA (Response to Action Points from ISH2)

#	Action	Party	Response
6	<p>Use of the inshore² vs offshore³ channels and effects of diversions</p> <p>Please provide evidence to support the assertion that the Thanet OWFE will entail a 90 min / 25 nm increase in approach or departure for shipping.</p> <p>(a) What assumptions are made about the size, draft and channel routing of vessels leading to this conclusion;</p>	<p>PoTLL, LGPL</p> <p><i>[PLA and ESL consider it appropriate to respond also.]</i></p>	<p>In the PLA and ESL's view, the extension would entail a diversion of approximately 14 miles (around 1 hour) for those vessels that previously accessed the NE Spit boarding and landing area via the inshore route to access the same area via the outside. If those vessels were to board and land at the Tongue the increase would be approximately 8 miles.</p>
	<p>(b) What are the fuel cost consequences of this diversion;</p>	<p>PoTLL, LGPL</p>	<p>N/A</p>
	<p>(c) What if any relevant additional air emissions and/or air quality effects might flow from this diversion; and</p>	<p>PoTLL, LGPL</p>	<p>N/A</p>

² The term 'inshore channel' or 'inshore route' is used by the ExA to refer to a channel passing between the existing Thanet Offshore Wind Farm and North Foreland, broadly from Goodwin in the SE Sector, crossing the SW Sector to Margate Road and North East Spit in the NW Sector shown on the Sea Zones Plan [OD-008].

³ The term 'offshore channels' is used by the ExA to refer to channels and shipping lanes located to the north and east – outside of the existing Thanet Offshore Wind Farm.

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	(d) If there is Fisherman's Gat capital dredge proposal, could it mitigate this diversion and if so, to what extent?	<i>PoTLL, LGPL</i> <i>[PLA and ESL also consider it appropriate to respond.]</i>	The use of Fisherman's Gat would reduce the voyage of a vessel coming up from the south compared to that vessel using the Sunk pilot station, but would not reduce the voyage for a vessel that would have used the inshore route.
7	<p>Red Line Boundary (RLB) Reduction Requests</p> <p>Where proposals to reduce the extent of proposed array area within the Thanet OWFE RLB were made at ISH2, parties making such requests are asked to provide:</p> <ul style="list-style-type: none"> • A plan based on the Sea Zones Plan [OD-008] identifying the extent of the proposed reduction; • A written justification, explaining and evidencing the need for the extent of the proposed reduction 	<i>All hearing participants requesting a reduction to the Red Line Boundary (RLB)</i>	<p>The copy of the Sea Zones Plan attached at Annex 1 shows edged in bright green the area of the proposed wind farm extension that the PLA and ESL propose should be removed from scope of the DCO application.</p> <p>North western area reduction:</p> <p>The Tongue deep water diamond (TDWD) is currently situated 1.7nm north west of the existing TOW boundary (line d). This area is typically used for handling larger vessels (over 200m loa and over 11m draft) but smaller vessels are served there as well. Whilst not used as frequently as the inner boarding position it has significant operational value to ESL and both of the ports (PLA and Medway). This area has been used 26 times in the last two months (01/11/2018 - 31/12/2018).</p> <p>The suggested extension north west will reduce the current 1.7nm to approximately 0.7nm which would be unacceptable. Therefore the current TDWD would have to be moved further to the NNE by at least 1.1nm (to maintain current distance) but possibly further if the full extension takes place and the boarding area to the south is relocated to allow for congestion.</p>

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			<p>If the full extension is to go ahead we believe the TDWD would be better situated (from a safe sea room perspective) closer to 2.5nm NNE of its current position. This increases the overall working area of the TDWD which we feel would be used more frequently to avoid congestion to the south. However this would have serious consequences for ESL and the ports operationally both in running costs and time/staff management plus the potential reductions in service due to weather exposure.</p> <p>As shown throughout the NRA the area between the North East Spit (NES) buoy and the existing TOWF boundary is heavily utilised by shipping making its way toward the inner boarding ground and the Margate Roads anchorage. This is supplemented by other small craft such as pleasure vessels and fishermen. Any extension toward the NES buoy would create a significant choke point (reduced from approximately 2.8nm to 1.7nm), not including a possible 500m safety zone.</p> <p>Western area reduction:</p> <p>The inner North East Spit boarding position is approximately 3.2nm to the western boundary of the existing TOW site and 0.4nm from the eastern boundary of the Margate Roads anchorage (charted by a no anchoring boundary).</p> <p>Whilst the anchorage area to the west of the boarding position can be clear of obstructions (anchored vessels) it often isn't, as shown in figure 13 (page 31 of the NRA).</p> <p>It would be unrealistic and we believe unsafe, to move the current no anchoring line (running from Elbow buoy to East Margate buoy) to the</p>

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			<p>west-south-west (from East Margate buoy due south to North Foreland) to guarantee sea room. This would reduce the size of the anchorage possibly forcing existing users to the Tongue DW anchorage to the north. The smaller vessels that use the Margate roads anchorage (typically sub 200m, 8m draft and below) would be too exposed at the Tongue DW anchorage.</p> <p>From the inner boarding position to closest TOWF extension point is approximately 1.7nm, when combined with the charted no anchoring line to the west leaves a width of around 2.1nm. It has been suggested a 'buffer' or comfortable distance from an obstruction would be 0.5nm. With this suggestion taken into account you potentially reduce the 2.1nm to 1.2nm (the room between anchored vessels to the west and the extension boundary to the east).</p> <p>Figure 52 (page 78 of the NRA) shows an interpretation of the overall sea room between the proposed extension and the inner boarding ground. It suggests that the sea room remaining post extension would be 3.3nm. Our concern is that this distance is based upon the fact that we have historically, on occasion, served vessels west of the anchoring line that runs between the Elbow buoy and East Margate buoy. When considering operational sea room ESL can't assume the charted area, (highlighted by the green triangle below), will always be clear of anchored vessels (as previously shown in figure 13, page 31 of the NRA).</p> <p>South West to Southern reduction:</p> <p>Like the Tongue DWD the NE Goodwin deep water boarding area was introduced to give ESL the opportunity to serve larger traffic such</p>

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			<p>as the MOL Beyond (served in February 2018, 337m loa typically 13m draft or above). This boarding area was also intended to give shipping and ESL another alternative station during bad weather, particularly when the Sunk pilots station is off service. It should be noted however that smaller traffic is handled in this area as well. The southern boundary of the windfarm extension is approximately 2.7nm from the NE Goodwin boarding area. Our suggested reduction to the south/south west is predominantly concerned with the narrowing of the shipping lane between elbow buoy and extension and the displacement south of the orange route (route 5) toward the boarding ground and then it's merging with the red route (route 4) in the narrowed area.</p> <p>One of the key advantages of the NE Goodwin DWD is that it can be used for vessels in the ultra large category (such as the container vessel Barzan, 400m loa, typically 14m draft, served 09/04/2017 or the NYK Ibis, 364m loa, typically 15m draft, served 30/10/2018). It also serves as an alternative for these larger vessels when the Sunk pilot boarding area to the north is off station, typically due to bad weather. The NE Goodwin DWD has been used been used 10 times in the last two months (01/11/2018 - 31/12/18).</p> <p>Figure 32 (page 54 of the NRA) shows that during the site survey vessels of a draft between 9 and 12 meters use the red route (route 4) indicating that larger vessels can and do use the area to the south/south-west of TOW. With the suggested extension on the eastern/north-eastern boundary increasing the passage length of the blue route (route 2) by an estimated 11 miles (minimum) there is the potential for larger vessels to use the red route (route 4). However the reduction in the red routes available sea room (because of extension west/south west/south) will either increase congestion on this route or</p>

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#	Action	Party	Response
			<p>force vessels to continue with an extended blue route.</p> <p>With the reduction to the south/south-west extension boundary the potentially diverted blue route traffic won't be faced with such a reduced passage and the deeper water along the western boundary of TOW remains available.</p>
10	<p>Marine Guidance Note (MGN) 543 Compliance</p> <p>Any allegations of MGN 543 non-compliance on the part of the consulting team for the Applicant in the preparation of the NRA [APP-089] in terms of guidance and methodology should be documented.</p>	<p><i>All hearing participants</i></p>	<p>The PLA and ESL do not agree with the Applicant that the NRA was undertaken fully in line with the requirements of MGN 543.</p> <p>MGN543 requires that the environmental impact assessment and resulting environmental statement (ES) (and therefore the NRA), "should evaluate all navigational possibilities, which could reasonably be foreseeable, by which the [...] extension [...] of an Offshore Renewable Energy Installation could cause or contribute to an obstruction of, or danger to navigation". Most of the data used for the NRA was from all or part of a three month period over the winter (see paragraph 5.1 of the NRA), which tends to be the quietest period of the year, for both shipping and recreational activity. Where there was seasonal variation it was still based on a month that was below the monthly average for vessels using the NE Spit pilot stations and outside of the busiest months for recreational activity.</p>

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			<p>In order to assess the collision risk as part of the NRA, the Applicant undertook collision risk modelling using one month's worth of AIS data from December 2016.</p> <p>In December 2016 ESL served 474 vessels, whereas in August 2017 they served 578. August is also a much busier month in terms of windfarm support vessels and recreational vessels. See table below.</p> <p>The AIS data tracks that were used for the NRA were from December 2016 to February 2017. As can also be seen from the table below, for the period Jan 2016-December 2017 these are the three quietest three months in terms of vessels served by ESL from Ramsgate. They also undertook monitoring in the area for 2 weeks in February and June 2017, to allow for seasonal variation. However, even in June 2017 the number of vessels served at the NE Spit was below the average monthly total for the year. The summer monitoring was also conducted well before the peak of recreational activity, which occurs during the school summer holidays.</p>

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#	Action	Party	Response		
			Month	2016	2017
			Jan	502	464
			Feb	563	462
			Mar	608	576
			Apr	571	542
			May	638	536
			Jun	581	534
			Jul	598	554
			Aug	572	578
			Sept	543	619
			Oct	560	538
			Nov	481	546
			Dec	474	492
			Totals	6691	6441
			<p>MGN543 also requires “potential navigational or communications impacts or difficulties caused to mariners [...] using the site area and its environs” to be assessed. The NRA does not sufficiently address the radar interference that would be caused by the proposed extension of the wind farm.</p>		

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#	Action	Party	Response
			<p>When a pilot launch is operating between the wind farm and a ship, with the ship in close proximity, the radar becomes less effective combined with the fact that high sided vessels will often severely impede VHF communication with the shore side operation (including VTS), the ship itself and any other vessels the other side of the ship being served. In effect the pilot boat can become blindsided.</p> <p>Finally MGN543 requires that the “Methodology for Assessing the Marine Navigational Safety & Emergency Response Risks of Offshore Renewable Energy Installations (OREI)’ should be closely followed through all stages of planning and development”. In turn, that Methodology states that risk assessment algorithms “should include the results of Rule violations, mistakes, lapses or slips”. However during the pilot bridge simulation study (discussed further at point 17), no emergency situations nor rule violations were tested.</p>
12	<p>PLA Cooperation Plan</p> <p>Further to the NRA Tables 20, 21 and 22 (risk control options) [APP-089], a meeting held in January 2018 between the Applicant, MCA and Trinity House referred to a cooperation plan to be entered into with the PLA. Please confirm whether the plan was ever completed. If it was, please provide the plan. If it was not please explain why not and confirm the matters that the plan was intended to address and how these might be addressed going forward.</p>	PLA	<p>The subject of a co-operation plan was raised in a meeting on 31 August 2018, but was not mentioned again and the PLA is not aware that such a plan has been drafted.</p> <p>The PLA has repeatedly endeavoured to progress matters following meetings with the Applicant. Meetings have taken place between the parties and the PLA has shared its comments on the Applicant’s proposals. However, the PLA is not aware of any changes that the Applicant has made in response, save that the Applicant did not apply for a larger extent of the red line boundary to the westernmost extent of the proposed scheme.</p> <p>The PLA is not aware of what matters the plan was intended to</p>

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#	Action	Party	Response
			address as this was not discussed with the PLA.
13	<p>Effects on Pilot Service Efficiency and Cost</p> <p>Present a model of the cumulative effects of Thanet OWFE on the Pilot service as a whole, including the need for longer Pilot deployments, the number of vessels able to be served with the existing Pilot complement, the suggested need for more pilots and any change to the cost of Pilotage to the customer</p>	PLA / ESL	<p>The PLA pilotage service currently operates at a service level of 95% so would not be able to serve more vessels with the existing complement without incurring delays.</p> <p>The average additional time in a pilot boat if using the re-located Tongue instead of the NE Spit is 17 minutes. This gives an additional 1680 hrs of pilotage time per year spent in the pilot boat. This equates to more than 1.5 full time equivalent pilots, therefore an additional 2 full time pilots would be required to cover this.</p> <p>The cost of this would be passed on to the customers through increased pilotage charges.</p> <p>If the NE Goodwin was used instead of the NE Spit the average additional time in the pilot boat would be only a few minutes, equating to between 300 and 400 additional pilot hours per year. However, the average additional time under pilotage for each voyage would be between 30 minutes and 1 hr, depending on whether the vessel used the inshore route or transited around the outside of the windfarm, putting additional strain on the pilotage service.</p> <p>It has not been possible in the time frame to establish the relative use of the Tongue and NE Goodwin if the NE Spit diamond was no longer available.</p>
14	North East Spit Sea Room	<i>The Applicant, PoTLL, LGPL,</i>	The PLA has been in discussion with the London Pilots Council and supports the outline schematic that they are intending to submit at

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	<p>Please provide a revised schematic identifying the minimum post construction sea room at North East Spit for a representative range of vessel lengths and drafts, taking account of the state of tide, met-ocean conditions and crossing traffic.</p> <p>Explain the factors relevant to the identified minimum distance.</p> <p>Is it the case that the minimum distance will vary dependent on met-ocean conditions? If so, please explain that variation and what that might imply for the number of days per annum that the inshore channel at North East Spit is available for a representative range of vessel lengths and drafts.</p>	<p>MCA</p> <p><i>[PLA and ESL also wish to respond.]</i></p>	<p>Deadline 1.</p> <p>It is agreed that the minimum distance will vary dependent on MetOcean conditions. If the wind and/or tide is/are from the south west then shipping will want to keep further away from the wind farm, reducing the width of channel available. The depth of water available varies according to the height of tide.</p> <p>The level of traffic, including passing traffic, crossing traffic, recreational, as well as vessels approaching to board and land pilots will influence whether a Master is comfortable use the inshore route.</p>
15	<p>North East Spit as a Pilot Location for Deeper Draft Vessels in Adverse Met-Ocean Conditions</p> <p>Is it the case that North East Spit Pilot Station is used by larger vessels in circumstances where other stations (e.g. Sunk) come off station due to adverse conditions?</p> <p>If so, please explain what effect your conclusions on Action 14 might have for the</p>	<p><i>The Applicant, PoTLL, LGPL, MCA</i></p> <p><i>[PLA and ESL also consider it appropriate to respond.]</i></p>	<p>The NE Spit is used by larger vessels in circumstances where the sunk is off station. Vessels up to 300m length and 12m draft use the inshore route and board and land at the NE Spit diamond. If the western extension goes ahead these vessels will be required to use the Tongue or NE Goodwin, increasing the number of days in the year when the pilot station is not available due to adverse weather.</p>

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#	Action	Party	Response
	number of days per annum in which such vessels will be able to access a Pilot? What implications would such change have for the ports?		
16	<p>Masters' and Pilots' Opinion on Vessel Proximity to Operational WTGs</p> <p>Provide a professional opinion on the closest safe distance between vessels and WTGs in an operational OWF. If relevant, please respond identifying the different distances relevant to a range of vessel lengths, drafts and changes in met-ocean conditions.</p>	PLA / ESL	<p>A minimum distance of half a mile, but this would increase to at least one mile if the wind a tide were setting a vessel toward the windfarm. This would increase further to 2 miles for boarding and landing operations.</p>
17	<p>Pilot Transfer Bridge Simulation Report</p> <p>Please provide your assessment of the degree to which the Pilot Transfer Bridge Simulation Report [APP-090] can be relied upon or ascribed weight by the ExA. If you conclude that it is of limited reliability, please record your reasons for reaching this conclusion.</p>	PLA / ESL	<p>In the PLA's and ESL's view, the ExA cannot rely on the conclusions of the Bridge Simulation to determine if pilot boarding and landing operations could safely continue in the area of the NE Spit boarding and landing diamond with the proposed extension in place.</p> <p>Bridge simulations are an accepted process when investigating the possible impact of a development such as the TEOWF. However, in this instance the PLA and ESL have concerns about the planning and technical restraints of the simulator study and the rigour with which it was carried out, which make the conclusions drawn from it unreliable.</p> <p>The extent to which the exercise represented real world conditions was very limited. The simulator presented an unrealistic and sterile version of shipping and landing at the NE Spit pilot station, and favourable conditions to those that are experienced in 'real world'</p>

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			<p>scenarios. In particular:</p> <p>i) Communication between pilot launch and all vessels served was good with no language/communication 'barrier' tested. There was no provision made for the potential lack of understanding of the cutter's requirements in the case of any restricted ability to communicate in English.</p> <p>ii) All vessels were 'manned' by participants with extensive local knowledge as either a pilot or launch coxswain, which would not be the case in real conditions. The simulations did not fully take into account the lack of local knowledge of a Master bringing his vessel to the NE Spit for the first time.</p> <p>iii) MetOcean Conditions:</p> <ul style="list-style-type: none"> • The extent to which the PLA simulator can re-create true environmental conditions is limited. It does not represent true darkness and does not give a true impression of the weather that may be being experienced. The simulation runs undertaken did not represent the full range of environmental conditions, e.g. wind strength and direction in which the pilot cutters are able to operate, using a maximum of 25 knots. • It was agreed between the Applicant and ESL that 25 knots could represent 'challenging operational conditions', particularly from the direction of north west through to east but ESL expressed concern that the simulator did not realistically represent 25 knots. In ESL's experience winds of 25 knots from the northwest through to east would generate a minimum wave height of 1.5m (and above), which would be further influenced and increased by tidal conditions (height,

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			<p>strength and direction), historical weather conditions (wind history in hours and direction) and charted depth of water. These effects were not apparent during the simulation.</p> <ul style="list-style-type: none"> • Height of tide in the simulation was represented by two states of tide (being high water or low water (+3)) which is not an exhaustive scope of tidal heights, and in particular does not represent low water conditions. Vessels of a deeper draft (approx 10m) can be served closer to low water but the boat programme will allow for this often requesting the vessel come to a position 1 mile east of the inner boarding ground. • Visibility issues, although factored in, cannot be adequately accounted for in the simulation. Night conditions under the simulation are closer to a representation of summer/dusk conditions. Pilot launches are heavily reliant upon radar in reduced visibility but the tug simulator did not have a radar which, in real world conditions, would have been essential for 5 of the simulated runs. • Met-ocean conditions in the simulator did not reflect the reality of launch/ship interaction. <p>iv) Pilot Launch:</p> <ul style="list-style-type: none"> • The simulator does not have a model of a pilot cutter so the pilot cutter was substituted with a tug, which reacts very differently. This raised obvious issues in terms of a 'true' launch representation. The tug's handling alongside the ship and interaction with MetOcean conditions were very limited. The tug simulator, as explained in iii) above (MetOcean conditions), was also without a radar facility which is an

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			<p>essential navigational tool used on pilot launches, particularly in reduced visibility; ESL standing orders are that they cannot proceed to sea without a fully operational radar.</p> <p>v) No emergency scenarios were simulated</p> <p>vi) Other craft</p> <ul style="list-style-type: none"> • Overall, representation of leisure/'other' craft was too simplistic, particularly as all traffic outside of pilotage behaved in full compliance with the rules of the road which is not always the case in real world conditions. • The simulations involved up to four vessels, coming to or from the pilot station, at any one time. A couple of runs included an additional vessel passing through the area, but the simulations did not include the range of small vessels such as recreational vessels and crossing traffic, such as windfarm support vessels, that may be found in the area. <p>Annex 1 of MGN 543 notes that the use of the MCA's Methodology for Assessing the Marine Navigational Safety & Emergency Response Risks of Offshore Renewable Energy Installations (OREI) should be closely followed. This methodology document states that 'Where appropriate the algorithms should include the results of Rule violations, mistakes, lapses or slips, these categories being transparent and variable amongst the simulation algorithms' (section B. 1. 3 – Design Traffic and Types: Human Element). However, no emergency situations or rule violations were tested during the Bridge Simulation.</p> <p>Any future simulation study would have to have a greatly increased</p>

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#	Action	Party	Response
			<p>number of simulations in order to provide a robust test of feasibility and operating risk, based on a more thorough and representative set of runs. The runs would need to represent the extent of environmental conditions and traffic situations that may be encountered, which the runs carried out for the Bridge Simulation do not. A range of emergency scenarios would need to be simulated and more realistic traffic situations, including those where ships / bridge crews do what they are expected to. The PLA simulator is not necessarily the best tool to use to quantify the operational risk, as it cannot realistically simulate the sea conditions and other environmental factors, or on-board situations.</p> <p>The purpose and extent of any future simulation discussed and agreed upon with relevant stakeholders, including the PLA and ESL, in advance of runs being carried out, in order to achieve a thorough bridge simulator design and specify an appropriate number of runs to provide a robust test of feasibility and operating risk.</p>
18	<p>PLA and Other Port / Services / Regulatory Risk Data</p> <p>The NRA [APP-089] references Marine Accident Investigation Branch (MAIB) data in the range 1997 to 2015. To the extent that it was suggested that the PLA or any other Port or service provider holds any other relevant adverse event / risk logs or data sets that may not yet have been taken into account in the NRA, the extent and the availability of this data for analysis by the</p>	PLA / ESL	<p>As described in the PLA's Written Representations (PLA3), the area surrounding the Thanet OWFE is outside of the PLA's statutory port limits. However, where incidents involving its pilots are reported, the PLA maintains a log of these, which it would be content to share with the Applicant.</p>

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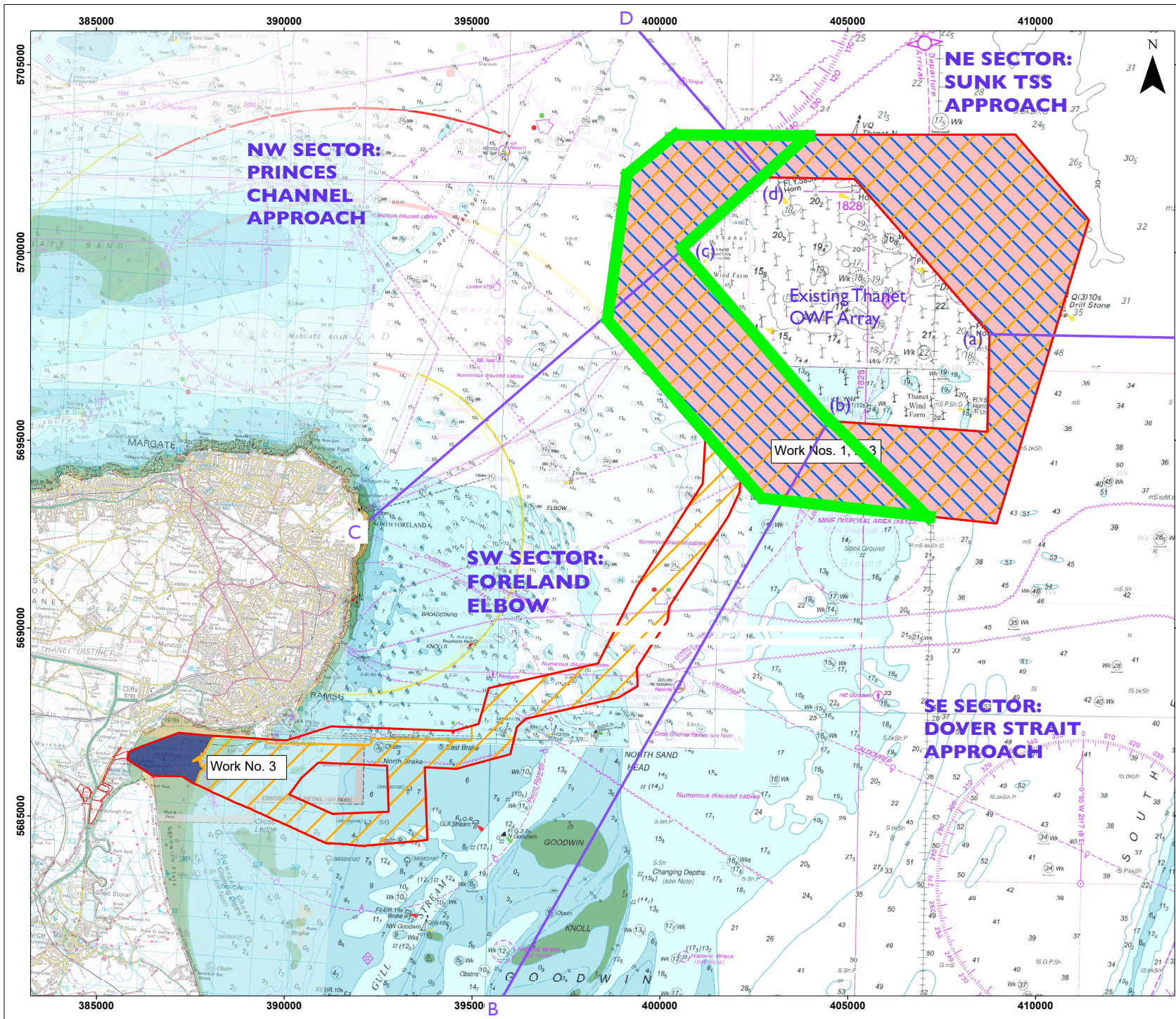
#	Action	Party	Response
	Applicant should be disclosed		
[]	<p>Social and economic effects on Ports, Shipping and Related Services</p> <p>Please identify and to the extent possible, quantify any alleged residual effects from the construction, operation and decommissioning of the Thanet OWFE, and identify whether you consider these to be relevant and important matters for consideration in the planning balance and acceptable or otherwise in terms of relevant NPS policy. Where effects are argued to be unacceptable, please provide reasons.</p>	PLA	<p>In the shorter term, with the construction of the Thanet OWFE, there are likely to be increased strain on the pilotage services and pilots due to the longer transfer times. In the longer term the Port may become less attractive to vessels, in particular container vessels, which may reduce employment opportunities and have a corresponding negative social and economic effect on the Port and related services.</p>

Winckworth Sherwood LLP
Solicitors and Parliamentary Agents
On behalf of the Port of London Authority and Estuary Services Limited
15 January 2019

ANNEX 1

Sea Zones Plan – Reduction in red line boundary

Proposed area for reduction shown edged green.



THANET EXTENSION OFFSHORE WIND FARM

Works Plan (Offshore)
With Reference Sea Zones

Document reference: 2.5
APFP Regulation: 5(2)(j)

Legend

- Order limits
- Work No. 1
- Work No. 2
- Work No. 3
- Work No. 3A

Sea Zone Boundaries

- (a) - A from Existing Array (a) due West (90 degrees)
- (b) - B from Existing Array (b) via NE Goodwin to shore (210 degrees)
- (c) - C from existing Array (c) to shore (N Foreland)
- (d) - D from existing array (d) to London Array North West (320 degrees)

Where a sea zone intersects with the English coast less than 13nm from the centroid of the Existing Thanet OWF Array, the English coast forms its outer boundary.

Where a sea zone does not intersect with the coast for a distance of 13nm or greater, an arc with a radius of 13nm from the centroid of the Existing Thanet OWF Array forms its outer boundary.

Sea Zone Names

- A to B - SE Sector: Dover Strait Approach
- B to C - SW Sector: Foreland - Elbow
- C to D - NW Sector: Princes Channel Approach
- D to A - NE Sector: Sunk TSS Approach

Sea zone names, boundaries and boundary definitions added by the Examining Authority, November 2018.

Datum: ETRS 1989
Projection: UTM31N



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Rev	0.1	Date 22/06/2018
By	PN	Check SL