

11. PLACE AND CONNECTIVITY POLICIES

PC2: Active and Sustainable Travel

TRANSPORT

Colchester Local Plan Review: Further Transport Evidence 28th October 2025

2.4 Conclusion, This chapter has set the scene for the transport analysis impacts from preferred site allocations. It has considered the vision and objectives at national, regional and local levels to provide a framework to guide the assessment of transport issues and mitigation measures in line with NPPF guidance. The chapter has also provided information on the scale of housing and employment growth in the preferred site allocations, which will be additional to reference case growth at allocations within the adopted plan (2017-2033) and at TCBGC. The following chapter (3) introduces the transport model North Essex Model (NEMo), and explains how household and jobs growth is used to derive BaU growth in trips to input into the model. NEMo outputs are then summarised to understand the BaU unmitigated transport impact of this growth.

Figure 2.2 Shows West Mersea Site PP23 but does not cover the access route onto Island and therefore in Findings does not show total blockage of the access to the Island because of Tides/sea water covering and blocking the highway (see also para. B.2 below). Is a ferry service to be provided for access ?!

Figure 4.2 indicates change to Bus Route on Island. This entails the Bus going via Dawes lane to the west of the proposed new development.

Firstly Dawes Lane is not wide enough or suitable to accommodate a Bus (Konectbus state "It is unlikely that we would be able to run buses along Dawes lane due to the junction with East Road being quite tight." Also the issue of being less than 5.0 metre width in places but more important is disenfranchising all those living/staying beyond Dawes Lane as the bus now goes via Chapman Lane which wider and more suitable route, picking up all those at the east end of West Mersea, Waldegraves Caravan site entrance and Blue Row stop. **This is not a good idea and should be rejected.**

4.3.1. Walking access/footway to the village from the PP23 east of Dawes Lane needs to be constructed and upgraded at it's southern end onto East Road. Also the provision of a new footway on the north side of East Road from the development going west to join with the existing footway.

6.5 Conclusion does not address total blockage of the B1025 at the Strood Causeway onto Mersea Island for periods of few minutes to possibly 2 to 3 hours or more. This both predictable through tide table reference but also unpredictable due tidal surges both higher and lower actual tide heights.

A Policy context supporting the vision-led approach

A.5 ECC Climate Action Plan

Para 16, 162 & 163 also 170, 171 & 173 of NPPF No mention of Sea Level rise effecting people movement, land sinkage and collapsing seawalls. These development proposals seem to pay little attention to NPPF policies quoted.

A.6 ECC Local Transport Plan

"• people and goods can get where they need to go efficiently and sustainably

• everyone should have good sustainable access to work, education and training, essential services and leisure activities, wherever in the county they live "

Not possible with a tidal access road which is impassable at times

A.7 Local implementation plans

“other sustainable travel measures, promotion and community projects to overcome the challenges and barriers faced by many residents and their perceptions of active travel”

Not possible because of the Strood Causeway

B Method for assessing the acceptability of transport impact from preferred site allocations

B.1 Strategic versus detailed

“Traditional approaches to acceptability of local plan development often focus on using level of service (LoS), volume/capacity (V/C) and queue length indicators around junctions. At the preferred options, plan making, Regulation 18 stage of local plan preparation there is risk that sole use of these indicators would tilt plans to highway schemes at the expense of the vision for sustainable transport; and put focus on specific problem locations while losing sight of the strategic tapestry of the transport network, and the cumulative impact of how people and goods move through the network using all modes. At the Regulation 19 stage and in site-specific, developer-led transport assessments, LoS, V/C and queue length indicators have their role – ideally when used to test the effectiveness of mitigation measures to strike the right balance between pedestrian, cycle, bus, car and goods vehicle movements aligned with a sustainable transport vision. It is also appropriate that they are considered at key junctions such as found on the strategic road network managed by National Highways (NH). However, at the Regulation 18 stage, a more strategic approach is recommended, aligned with the intent of the NPPF and the draft LTP4. “

B.2 Assessment of keeping people and goods moving (theory and method)

For Mersea Island there is no mention made of complete blockage of B1025 due to tides covering the road and making it impassible, Queuing traffic can be an issue with some 600* vehicles an hour movements both on and off the Island.

* Last monitoring for Present Local Plan 2021/2033 indicated some 7500 vehicles coming onto the Island and also 7500 vehicles off the Island between 0700hrs and 1900hrs. Of which 1870 come from using the Lower Road Peldon.

WMTC request that traffic survey count is carried out at The Strood B1025 to properly assess the present traffic numbers.

This year 2026 the tide during the day time is predicted to be over 5m on 102 occasions covering the period from approx. 1030hrs to 1630hrs. WMTC understood that Firstbus did not run to Mersea when the high tide is predicted (to be 5m +) but the bus will not go as far as Mersea for a period of up to 3 hrs.

This practice shows that the bus timetable and actual running of the bus could be affected during any period covering from approximately 1000hrs in the morning till approximately 1700hrs in the evening. The Firstbus electronic board at the Colchester lay-by bus station does not usually reflect the actual bus cancellation or delays. At the Mersea end there is no announcement boards and the web site is seldom updated.

Firstbus has yet to advise directly the WMTC of their policy about the Strood crossing due to high tides. However Konectbus (Seasiders) who run the other service are only contracted by Essex County Council to provide a service to Peldon, presumably their coming onto the Island is for commercial reason. If ECC is abolished in a couple of years will the new Unitary Authority finance this Peldon service and onto Mersea. The company has stated *“Our policy on high tides across the Strood is to leave 45 minutes on either side of a high tide to allow the road to clear before we send any buses over.”* What they do not state is the issue of traffic build up which can also snarl up vehicle movements.

Firstbus provide an about Hourly service to and from West Mersea to Colchester from 0642 till 2310 i.e. some 17 buses per weekday and Saturdays and two hourly Sundays some 7 buses. The

evening 4 buses are supported by Essex County Council. Konectbus provide a service to Colchester via the B1025 via Peldon about 5 buses a day from 0937 till 1637hrs.

This does not also take into account the stoppages due to the unpredicted tides being above 5m+, and therefore Public Transport on and off the Island is totally unpredictable and unsatisfactory state of affairs.

The queuing traffic is also a nuisance to business for deliveries and access of staff.

B1025 ACCESS ROAD TO MERSEA OVER TIDAL CAUSEWAY KNOWN AS THE STROOD

Mersea is situated at the end of the B1025, its only access roadway, which crosses a tidal causeway and needs serious consideration. The roadway is covered by seawater when the tides are predicted to be 4.65m or higher above chart datum. Tides of about 5.9m, which is some 1.25 m of water above the road surface. Weather and atmospheric conditions can increase or decrease the coverage both in time and height. The road can be wet for just a few minutes or impassable for up to 3+ hours. In the worst case such as 5/6th December 2013¹ when there was double surge at high tide, this tide was only 30mm less height than the 1953 disaster East Coast flood height at Mersea (¹ Earth Science Review southern north sea storm surge). The bigger/higher tides occur around midday and midnight, that is twice every twenty four hours. During busier holiday times the mainland side traffic can back up over 4 to 5 kilometres. The CCC's own Sustainability Report states that climate change is likely to cause increases in tidal surge heights of between 97mm and 115mm. Also the land is sinking at the rate of 1mm per year during the twentieth century. During the periods of the higher tides the Fire Service deploy onto the Island an extra Fire vehicle to back up the local retained Fire service on the Island (When tide predicted to exceed 5.2m). The Emergency services do have contingency plans for evacuation of casualties from the Island, which does take place on a regular basis. The B1025 is also near/below sea level were it crosses Pete Tye common some 300 metres from the seawall off the Pyefleet channel. This seawall was topped and breached in the 1953 flood and the roadway here remained covered and impassable for many days. The Government has indicated any future developments should not be situated in areas vulnerable to flooding. Whilst very few houses on the Island are liable to flooding, however the only access to the Island does flood on a regular basis through out the year.

The Causeway onto the Island would need to be raised to 6.5 metres above Chart Datum (4.5m above OD) to ensure the unlikely coverage by the sea. This would require 1.65 Km of road to be raised by some 2 metres, whilst still keeping access to the Island open at most times. The present Causeway construction is not substantial having grown by addition of material since Saxon times, and any large storm tidal surge may easily overwhelm and breach the roadway which is only protected by some stones placed either side, last done some years ago. Any road works through this sensitive protected area would also be an issue.

The Essex County Council has installed physical tide gauges at either end and in the middle which show depth of the water when you reach them! There are notices either end of the causeway stating "Danger when tide covers the footway" hardly explicit as to the issue that vehicles will likely get stuck if the water is too deep and salt water will seriously damage the vehicle as it is so corrosive to metal, electrics/electronics, brakes and wheel bearings.

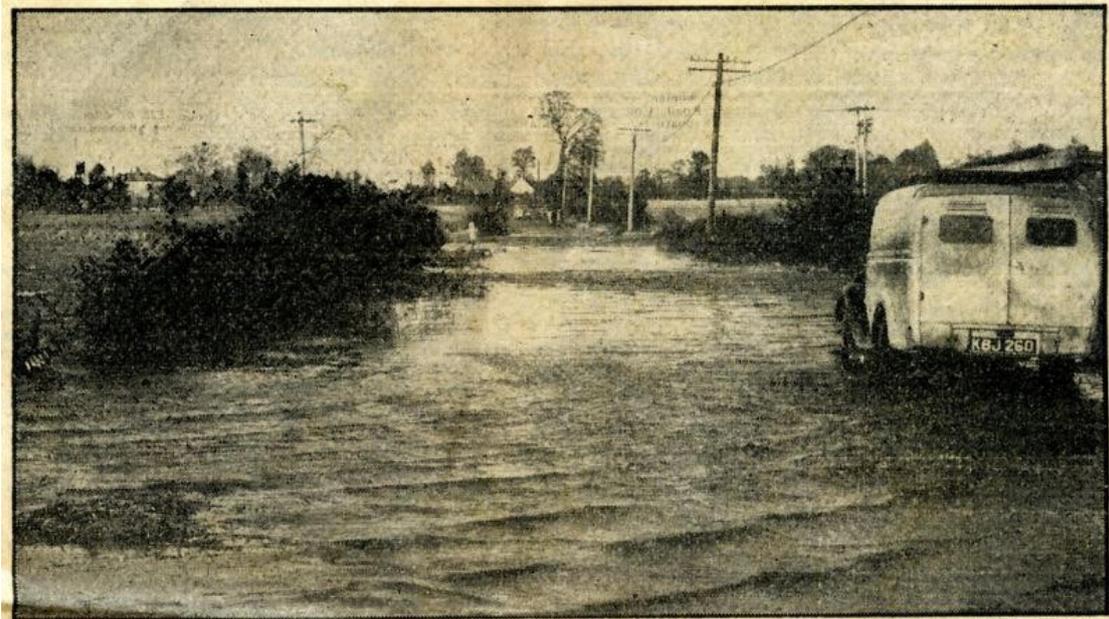
It is an ongoing problem for all 999 services as they regularly being called to the Strood to help stranded motorist and people trapped in vehicles as the tide rises around them and sometimes the vehicle floats.



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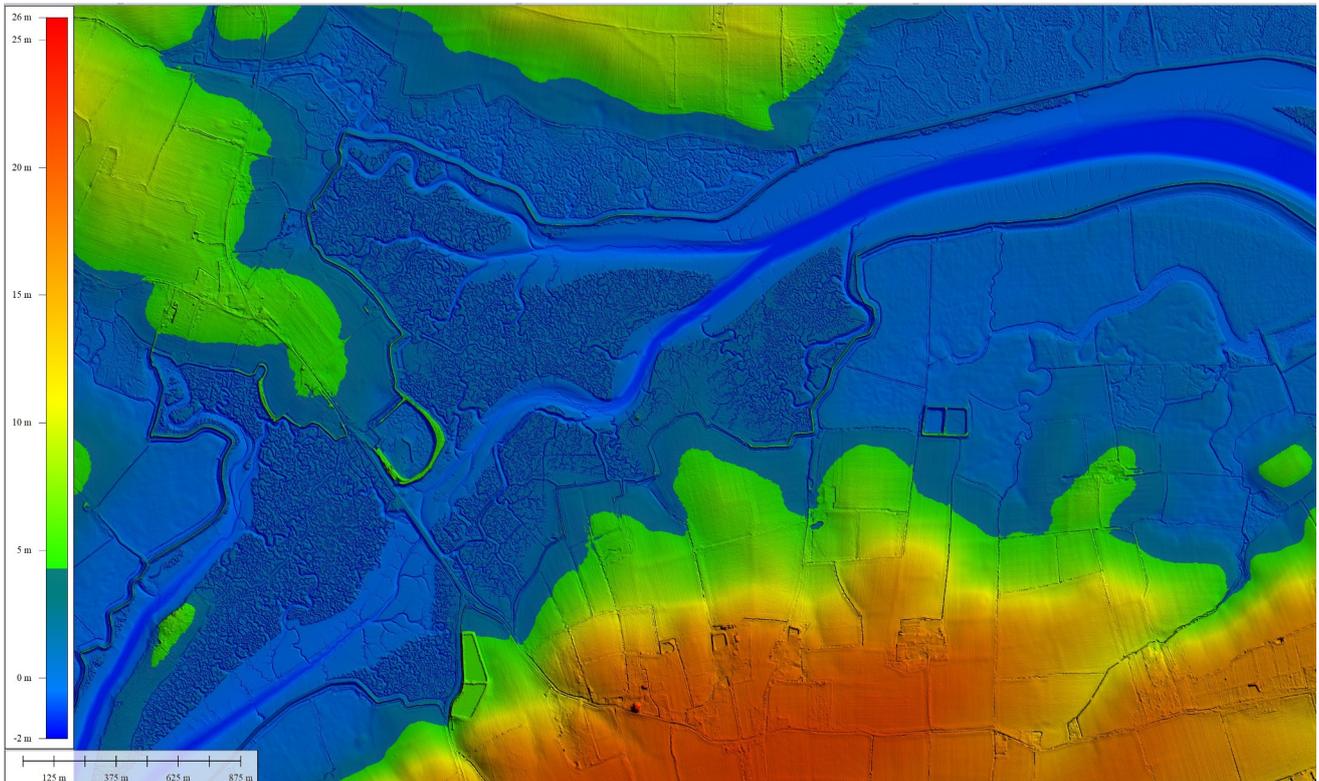
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The main Colchester-Mersea road was impassable for most of this week at Pete Tye, where the water returned to the site of a bridge long since disused.

Newspaper cutting Essex County Standard February 1953

**Lidar Display map from Environment Agency in 2022
4.30m Above Ordnance Datum Network Digital Terrain Model.jpg from EA
The Blue area is the area below 4.3m OD**



This Lidar map above shows the equivalent area flooded (coloured Blue) in 1953 when the tidal surge was approximately 4.3 metres above Ordnance Datum or 6.9 m Chart Datum high tide. (*Chart Datum is approx. 2.61m below Ordnance datum (Newlyn). The uncertainty associated with this value in the model is $\pm 0.07m$*). Note that a lot of the mud/earth seawalls are now under water which would indicate that since being built after the 1953 flood the Lidar map indicates have now slumped in height. This should raise questions about how the flooding data has been prepared. Also the original height of the seawalls was to meet a requirement of a 1 in 100 years “event” back in 1953. However we now know that sea level rise is increasing by some 2 now 4mm per year, added to which the land is sinking in the Southeast at approx. 1mm per year and therefore an “event” must be more imminent.

As with the B1025, main roads in West Mersea follow historic tracks being similarly narrow in parts as is normal for rural village locations that have developed into small towns. These roads are just Adequate for the existing population but are not during the summer months when the population can more than double due to the number of visitors, caravanners and campers. (under caravans it shows the number of Caravan tourist on an August Bank Holiday weekend can increase the population to some **13,000+(-)**) The current static population being approximately 7220 (2021 census data) and to which must be added those visitors from the surrounding areas that is East Mersea, Peldon and Langenhoe, these being distinct from “holiday” visitors. As a result of this influx of all types of visitors, especially during the summer months there is considerable congestion and parking is at a premium.

There is no secondary school on the island. The nearest secondary schools are Thomas Lord Audley School in Colchester at 12 Km and Thurstable School in Tiptree at 19 Km. Transport facilities for pupils are therefore important. Transport to Thurstable and other schools except Thomas Lord Audley involves a cost to parents. There is no direct link from West Mersea to Tiptree and special buses are currently required for pupils attending the Thurstable School.

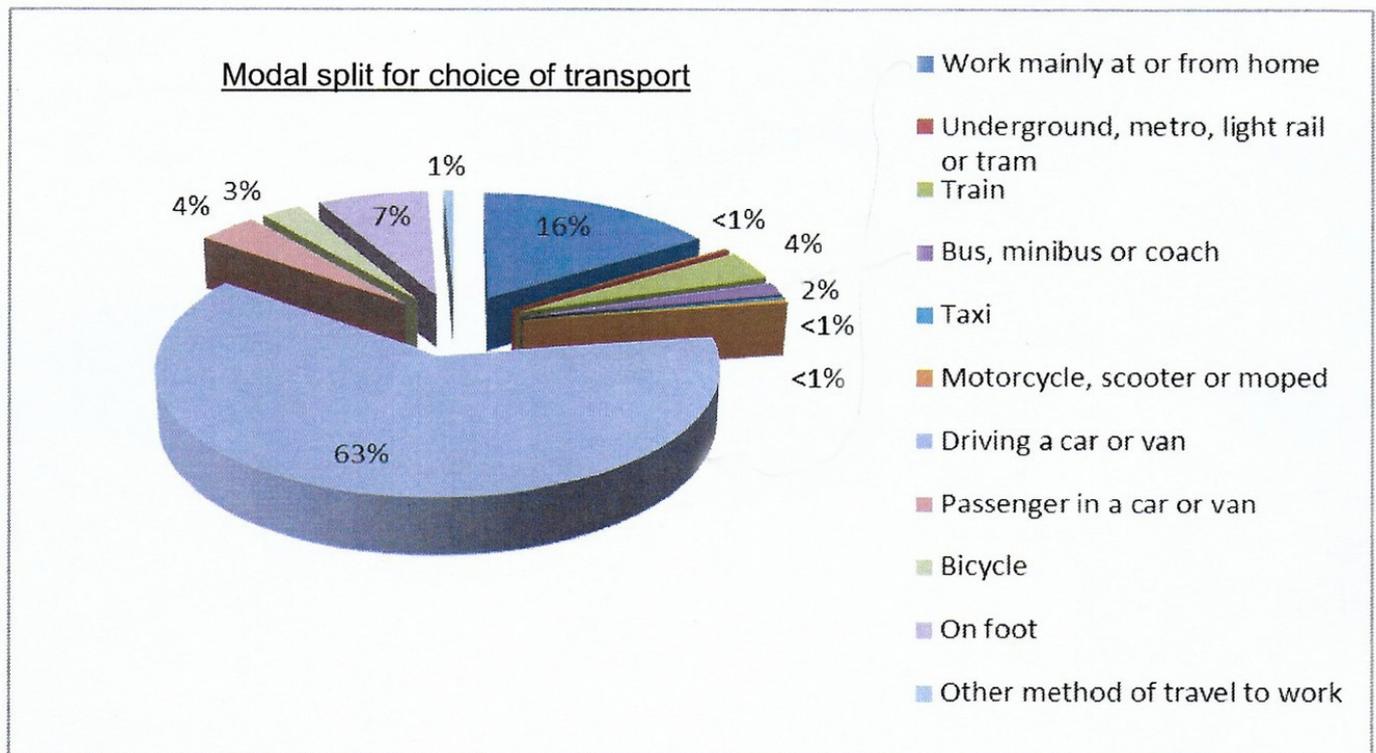
For pictorial information regarding West Mersea see Google map under (amended) showing the B1025 route to Colchester, together with the approximate position of the main line railway station and hospital to the north and to which can be added the Park and Ride location.



The importance of the B1025 cannot be overestimated, and despite the possibility of being criticised for repetition, whilst West Mersea has certain local facilities, other facilities, for example secondary schools, hospitals, major shops, main line railway services, major sports facilities, swimming pool, all require a journey to Colchester (or Tiptree). Colchester is some 8 to 9 miles away (approx. 13km). It is because of these that transport facilities are so important.

The Office for National Statistics shows that of 3,183 persons who go to work from West Mersea.

West Mersea Workplace zone 21



| To: | From: | West Mersea | % |
|-----|--------------------|-------------|------------|
| | West Mersea | 588 | 18 |
| | Castle | 280 | 9 |
| | Greater London | 170 | 5 |
| | Tendring District | 100 | 3 |
| | Braintree District | 82 | 3 |
| | No fixed workplace | 358 | 11 |
| | Other Locations | 1101 | 35 |
| | No journey | 504 | 16 |
| | Total | 3183 | 100 |

The use of Public Transport is low, 7% compared to 67% driving, or passenger in a car or van. (Colchester 61.1%).

A recent Public Transport review reported that only 15% of traffic was commuting 85% was local out of town shopping, school runs and pleasure. The possible reason for this is obviously one of convenience but also due to the lack of and unreliability of the local bus service together with

higher cost. With a more frequent bus service, lower cost more travellers may use public transport but these improvements cannot overcome the unreliability of the service because of the High tides on the Strood crossing.

It is also noted that journeys made from West Mersea taken from the same source, Office for National Statistics, highlights the lack of employment opportunities in West Mersea. A situation that is unlikely to improve and which will increase the strain on existing travel facilities due to new residents having to travel off the Island to find employment. In any infrastructure the movement of people and goods is important and frequent transport facilities are needed in any large development. This is hardly a frequent bus service as suggested in Colchester's original plan. Additionally when the causeway is flooded buses terminate in the adjoining village of Peldon which is some 6 kilometres from the centre of West Mersea. Therefore in these circumstances West Mersea has no bus service. A monthly notice used to be issued by the bus operator showing the buses that were cancelled during the month ahead in 2016. Note these buses are cancelled due to predicted tides and not on weather and actual water conditions which may further affect the ability to cross. However this practice has since ceased.

Traffic Distribution from the Evidence Base Further Transport Evidence October 2025

4.8 The following residential development traffic distribution for has been agreed with ECC during the pre-application process.

4.9 It is considered that the main desire line for vehicular traffic during the AM and PM peak periods is towards Colchester i.e. departing Mersea Island. The 2011 Census Data has been examined for West Mersea (Mid Layer Super Output Area – E02004526) to establish the distance that residents travel to work. The Census output report is attached at **Appendix K** and is summarised below:

- **Less than 2km 24%**
- **2km – 5km 4%**
- **5km – 10km 5%**
- **10km – 20km 46%**
- **20km – 30km 4%**
- **30km – 40km 6%**
- **40km – 60 km 2%**
- **Over 60km 10%**

4.10 For the purpose of this assessment it is considered that all work that requires travelling (i.e. not working from home) under 5km are on Mersea Island and all work destinations over 5km are not on Mersea Island. Therefore, around 29% of commuting trips are on Mersea Island and 71% of commuting trips are off Mersea Island.

4.11 In addition, the 2011 Census data has been examined to determine the method of travel to work for West Mersea. The results are attached at **Appendix K** and summarised below:

- **Train 5%**
- **Bus 2%**
- **Taxi 0%**
- **Motorcycle 0%**
- **Driving a car / van 74%**
- **Car passenger 5%**
- **Bicycle 3%**
- **Walking 9%**
- **Other 1%**

4.12 Due to the nature and location of West Mersea car usage is the predominant mode of travel for commuting journeys. This indicates that the majority of people who work away from Mersea Island (71%) will travel by car whilst some people who work on Mersea Island (East Mersea for example) will also travel by car, **although walking and cycling to work (12%) is high** and can therefore be encouraged through good design and sustainable development location.

4.13 However, not all vehicle movements from residential developments during the peak hours are commuting journeys. Some journeys are associated with taking children to / from school, shopping **and leisure and these will primarily be journeys undertaken on Mersea Island.**

The school run noted above should also apply to secondary and higher education OFF the Island
From the WMNP Residential Survey in 2019, in which 656 residents responded, we know that nearly 28% of residents responding did a daily journey across the Strood and back with 0.3% using a bicycle. The survey also showed 19% used a pedal Bicycle as their most regular means of transport on the Island. Only some 6.5% use the bus daily of whom 61% had senior citizen bus passes with 90.5% walking to the bus stop.

The other issue that needs consideration is the evacuation of the Island in case something goes wrong with Bradwell Nuclear Power station, either from the existing mothballed site or from any new Modular Small Reactors proposed for the existing nuclear sites, such as Bradwell. Below the Secretary of State for Energy Security and Net Zero Ed Miliband statement to Parliament Tuesday 10th June 2025

“Secondly, small modular reactors offer a huge industrial opportunity for our country, and we are determined to harness Britain’s nuclear expertise to win the global race to lead in this new technology. I can inform the House that following a rigorous two-year competition, today Rolls-Royce SMR has been selected as the preferred bidder to develop the UK’s first SMRs, subject to final Government approvals and contract signature. This initial project could create up to 3,000 skilled jobs and power the equivalent of around 3 million homes.

In the spending review, we are committing to the public investment needed to get the SMR programme off the ground, with more than £2.5 billion in funding over the period. The project will be delivered by Great British Energy Nuclear, a publicly owned company headquartered in Warrington—an allied company to Great British Energy, which is headquartered in Aberdeen. Subject to Government approvals, the contracts will be signed later this year. Our aim is to deliver one of Europe’s first SMR fleets, leading the world in the nuclear technologies of the future, with more good jobs and energy security funded and made possible by this Labour Government.

BRADWELL

NPPF Policy 162 & 172, 178

These policies deal with the need to take account nationally significant infrastructure, mitigation of major hazards and consequences of major accidents. Also across local boundaries co-operation. We do not believe that these policies have been fully taken into consideration within the DLP and therefore conclude the plan is unsound. In February 2015 Maldon District council replied to a cross boundary questionnaire as following:

“There will be implications for Maldon from proportional settlement growth at Tiptree and West Mersea which are settlements close to the boundary with Maldon DC. This issue should be elaborated upon going forward and we would be keen to work with Colchester on the plans for growth in these towns as they emerge.”

We are not aware that further consultation on the expansion of housing and caravans has taken place and we at Mersea are concerned because Maldon DC has a policy D4 in which the last Paragraph states “The Council (MDC) will strongly support the principle of the development of a new nuclear power station at Bradwell-on-Sea.” Colchester Council is opposed to a new nuclear power station at Bradwell.

In 2013, the ONR has accepted a report that there are no longer any reasonably foreseeable events which could lead to a radiation emergency with off-site consequences which require the local authority to maintain an off-site emergency plan the ONR assessed this and concurred with these conclusions.

However the site still has an active nuclear waste storage facility which is vulnerable to both flooding and any hostile action.

In October 2016 GNF, a joint venture between China General Nuclear Power Corporation and French firm EDF, submitted a Generic Design Assessment for the UKHDR100 nuclear technology. The assessment process is expected to take five years. If the Office for Nuclear Regulation and the Environment Agency approve GNF’s application, it will mark the next step forward in securing planning permission to build the plant.

Any further Nuclear Power station at Bradwell will lead to a potential increase in risk of a radiation emergency particularly to the community of Mersea Island which is in the prevailing direction of the and down wind of the Bradwell site by some 4Km across the open water.

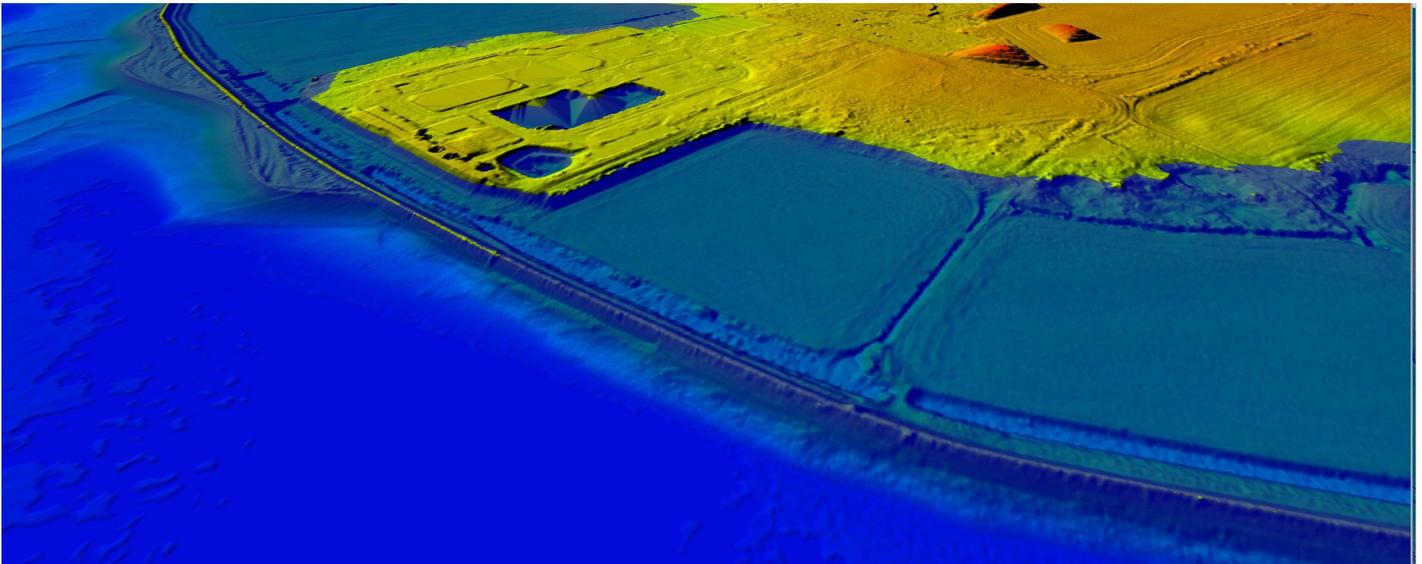
It is logical for the Colchester Borough Council to anticipate such an occurrence and urgently create an updated off-site emergency plan. It is axiomatic that any emergency plan must include

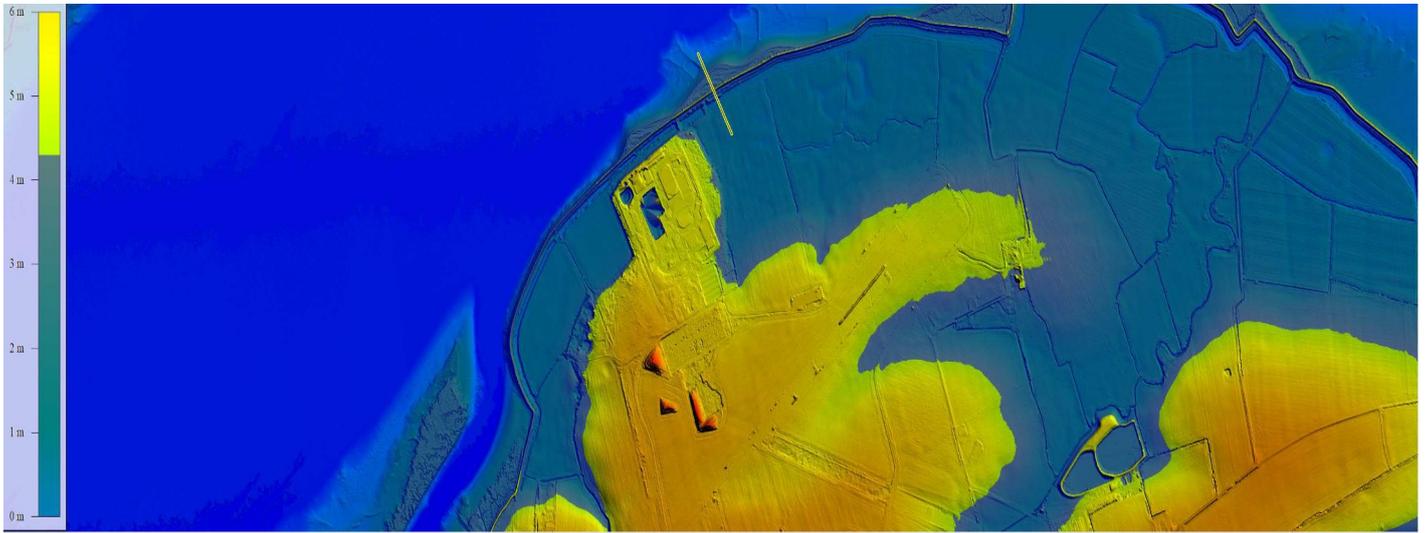
comprehensive and well thought out proposals for the mass evacuation of the entire population of Mersea Island, via a single two lane highway regularly flooded at high tides.

Before any consideration can be given to any planning proposal (which if granted will result in a substantial increase in the population of Mersea Island), the Secretary of State must be in a position to review Council's off-site emergency plan specifically in relation to a radiation emergency and the inevitable off-site consequences. If that plan is not now in place, any suggestion of the inclusion of the 300 homes within the emerging Local Plan would be premature.

The Office of the Nuclear Regulator (ONR) has stated that the revised Sizewell off-site Emergency Plan will require the priority evacuation of holiday makers. This should be followed in any future planning of evacuation plans.

LIDAR MAP @ +4.3m ODN showing the area around the existing power station and store. Here again one can see the topping of the seawalls around the site and the flooding it causes.

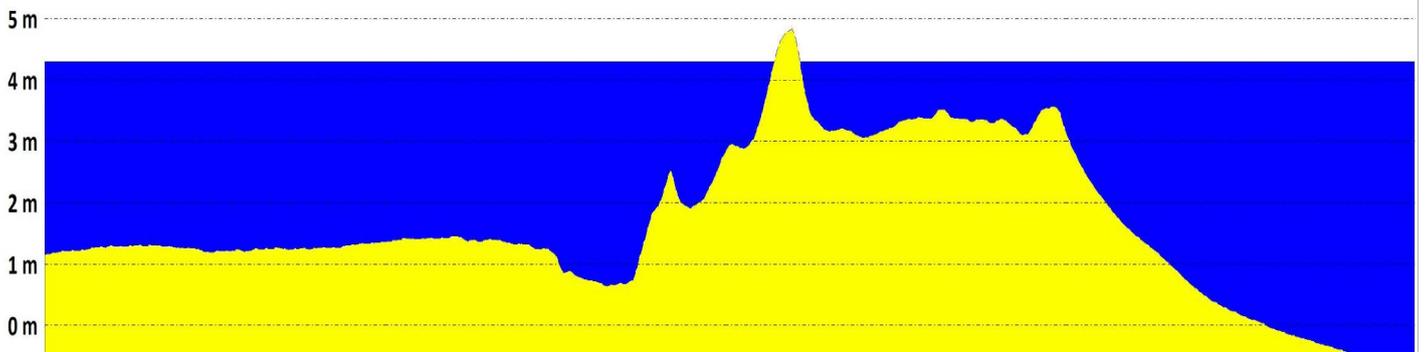




Path Profile Line of Sight

From Pos: 600400.444, 208984.014

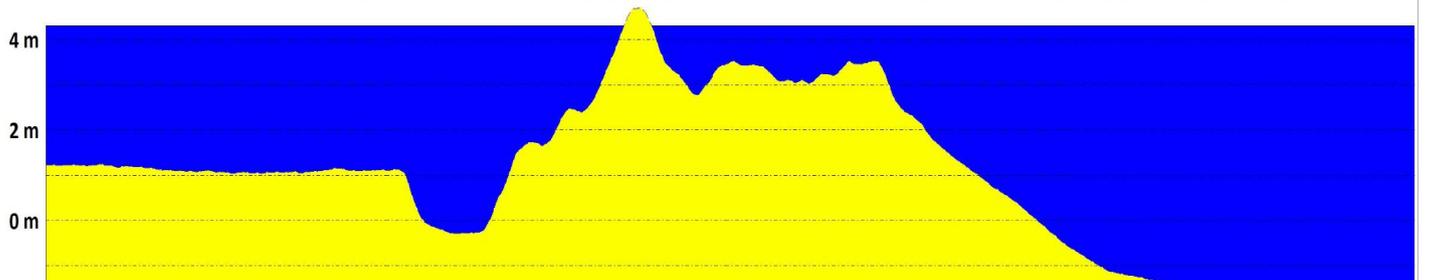
To Pos: 600271.367, 209199.398



Path Profile Line of Sight

From Pos: 601742.348, 209363.208

To Pos: 601591.059, 209573.637



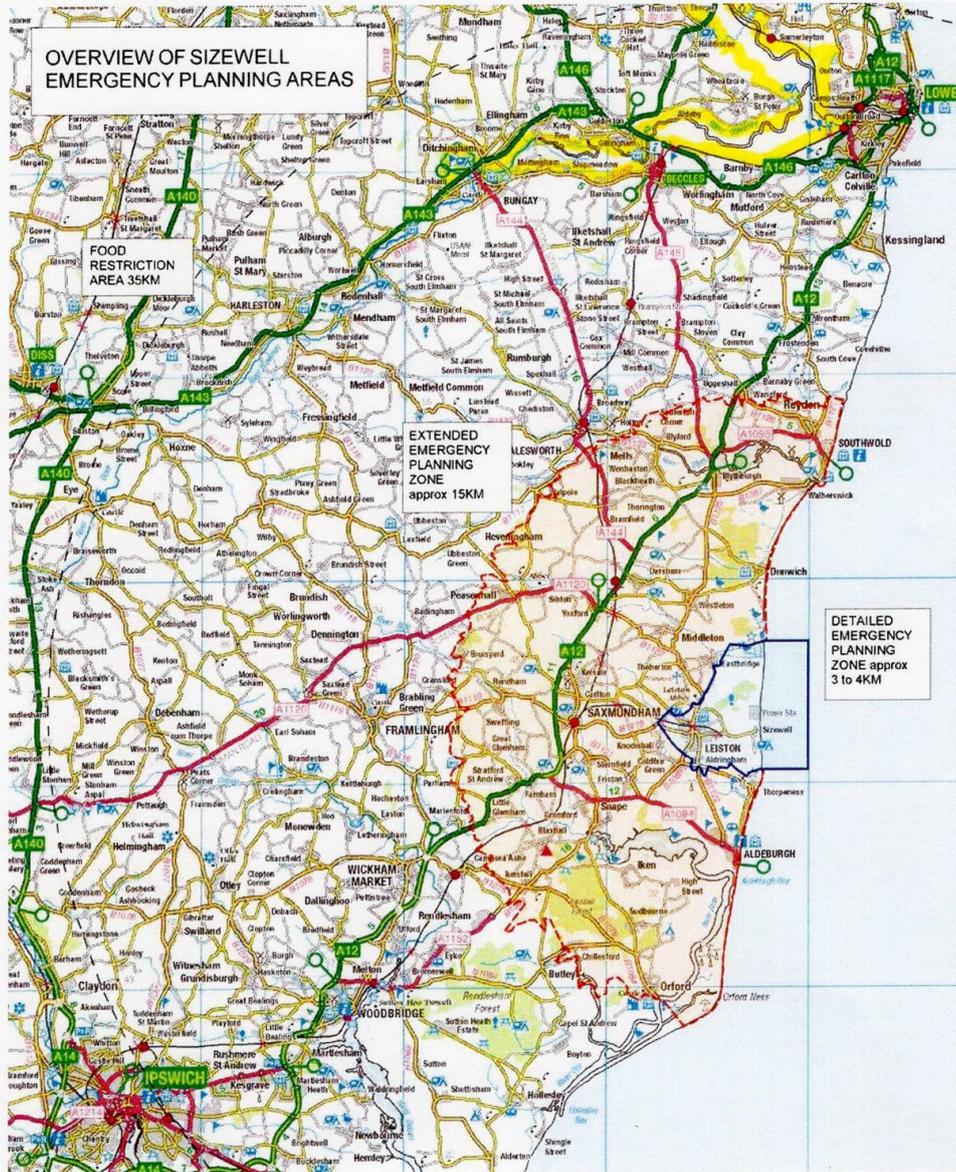
Below are details from the Sizewell/Suffolk Emergency Plan:

NOT PROTECTIVELY MARKED

Sizewell Off Site Emergency Plan

Issue 3.5 dated Feb 17

An overview of Sizewell Emergency Planning Zones can be seen on the following map:

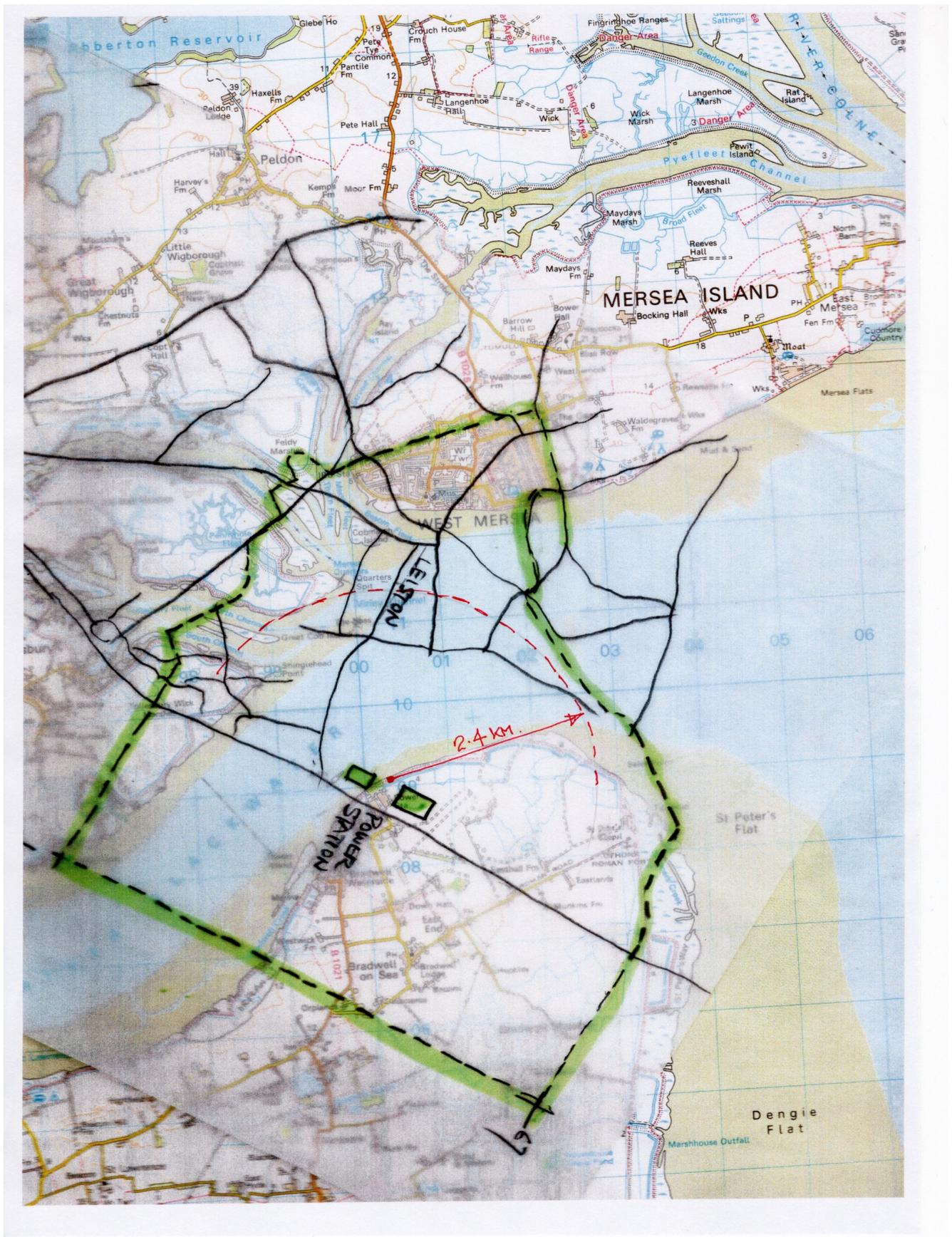


10. Concurrent Risks.

The Suffolk Community Risk Register identifies the following risks that may affect the implementation of this plan if they occur at the same time as any nuclear emergency:

10.1 **Flooding.** Certain weather patterns, in particular low pressure systems in the North Sea, can exacerbate the effect of high tides by generating a tidal surge on top of the predicted high tide level. The Sizewell site is located above the

Below is the map showing Mersea Island with the Sizewell DEPZ superimposed on top, in green, and the 2.4 Km radius, in red, is also shown. Below are extract of details from the Sizewell Emergency Plan.



The ONR revised the Sizewell Detailed Emergency Planning Zone (DEPZ) in April 2014. The revised area is a land component based primarily on 6 figure postcodes located around a circular radius of approximately 2.4km with an extended boundary that includes the town of Leiston and part of the village of Aldringham. A rectangular seaward component commences at the points where the land component reaches the coast and extends 2km out to sea

1 . Countermeasures within the DEPZ are pre-arranged/issued for immediate implementation for certain identifiable groups within 1km from the site. All identifiable groups within the DEPZ are provided with prior information.

25.3.3 Evacuation. Where the risk to public health posed by an off site release of radioactive contamination is predicted or has been identified through radiation monitoring to be beyond the short term protection which sheltering affords, the SCG on advice from the STAC may decide to evacuate areas around the site. Detailed evacuation arrangements for the DEPZ are at APPENDIX K and the Police will take the lead in implementing any evacuation action. Areas advised to evacuate will be identified by post codes. The MCC will lead on communicating evacuation arrangements to affected people.

Evacuation is not automatic on declaration of an Off Site Nuclear Emergency and will only be used where radiation monitoring and modelling has identified a potential risk to public health that requires people to be moved in order to avert effective dose of at least 30mSv.

However, people using the beach and occupying the Beach View Holiday Park will be advised to immediately evacuate by the Police due to being afforded less protection than more substantial dwellings.

DEPZ - Where evacuation is required in the DEPZ, this will be communicated via TV and radio and will make use of the NOT PROTECTIVELY MARKED Sizewell Off Site Emergency Plan Issue 3.5 dated Feb 17 29 NOT PROTECTIVELY MARKED evacuation arrangements provided in prior information. Further detail on evacuation arrangements is at APPENDIX K. EEPZ - Where a risk to people beyond the DEPZ is predicted, the STAC may advise the SCG to evacuate certain sectors to avert dose. This advice will be passed via radio and TV.

Once a Nuclear Emergency has been declared it difficult to understand how the visitors and caravanners will be evacuated first, potentially many thousands, before the inhabitants. If the emergency is broadcast or on the internet surely the whole Island will want to evacuate and without military control in place very quickly the scene could turn very nasty.