

Appendix 15

Transport / Access Issues

Proposals

The applicant has undertaken an assessment of the potential effect of the proposal on the transport networks serving the site and surrounding area. The potential effects from transport and traffic have been assessed:

- Driver delay
- Pedestrian delay
- Pedestrian amenity
- Severance
- Accidents and safety
- Dust and dirt

The assessment concludes that the proposed increase in traffic would only be over a number of peak periods and only for a few days at a time. Consequently the assessment concludes that even during peak periods, such an increase would not lead to a significant transport effect. To reduce the impact of transport a number of traffic plan measures are proposed including traffic routing, site management to minimise impact on highway users, driver training, pre and post monitoring surveys, employing complaint procedures.

The assessment identifies that the Roseacre Site is served by a network of minor and unclassified roads. Roseacre Road itself is directly to the east of the site and is an unclassified single carriageway road. Due to the network of country lanes in the vicinity of the Roseacre site, there are a number of potential access routes to this site. The applicant has examined a number of different options to access the site and has concluded that Route 3 is the most suitable, the other options being rejected due to issues such as the numbers of residential properties, narrow roads, accident history and presence of schools and general unsuitability for HGV traffic.

Route 3A proposes that the site would be accessed from the A583 to the south close to Clifton village. Traffic would then to use Clifton Lane, Station Road, a short section of Treales Road, Dagger Road, Salwick Road, Inskip Road and Roseacre Road to reach the site, a distance of approximately 9km from the A583. All of these roads are unclassified roads.

The access to the site from Roseacre Road would require lowering approximately 300m of hedge along its western side in order to create surfaced priority junction with visibility splays. From the junction with the public highway a 4m wide access road with passing places would lead to the site compound.

On the eastern side of Roseacre Road opposite the proposed site access is an existing farm gate allowing access into the DHFCS site. This access would be improved thereby allowing vehicles to pass through the DHFCS site avoiding Wharles village. Some improvement would also be required where the DHFCS internal roads exit onto Inskip Road / Higham Side Road.

The other roads to be used by traffic between Wharles and the A583 are all unclassified, predominately country lanes. Generally these roads are of reasonable width. However, there are some locations on Roseacre Road, particularly on an 800m – 1km section of Dagger Road where the highway is narrowed and where it is difficult for two HGV's to pass. In order to ease traffic movements on this road, five passing places are proposed to provide localised widening to between 5.5 and 6.5m thereby allowing two HGV's to pass. In all cases the widening can be achieved using highway verge and it would not be necessary to remove roadside hedgerow.

The ES includes an assessment of traffic impacts which includes details of the anticipated traffic flows and an assessment of likely impacts in terms of highway capacity and safety.

The traffic movements associated with the development would vary over the duration of the project depending upon the activities being undertaken. During stage 1 (construction of the site), which would last approximately 2 months, there would be an average of 22 two way HGV movements per day (maximum of 48). During stage 2 (mobilisation of rig, drilling of first borehole and demobilisation of rig) lasting five months, there would be an average of 14 two way HGV movements (maximum of 50). For drilling of the subsequent three wells, the duration of the movements would be over a shorter period of three months but would equate to around 17 two way HGV movements per day. For hydraulic fracturing, (taking one to two months for each well) the average two way HGV movements would be around 10 per day. For the initial flow testing, (around three months), it is anticipated that the average two way movements would be around 5 per day. The extended flow testing would generate minimal HGV movements whilst the decommissioning and restoration of the site over approximately 2 months would generate an average of 22 two way HGV movements.

The peak traffic flows will occur as a result of combined traffic associated with activities at more than one well. The total traffic numbers in the ES are based on such conditions. The peak traffic generated would be around 50 two way HGV movements per day which would occur for around one week on eight occasions over the life of the project.

Traffic counts have been undertaken at various locations along routes 3A and 3B in order to ascertain existing traffic conditions. Clifton Lane is the most heavily used part of the route and carries around 2800 vehicles per day of which around 200 are HGV's. Most of the other roads that would be used as part of route 3B carry between 400 – 600 vehicles per day of which 20 – 30 are HGV's. Clifton Lane forms the access to the Westinghouse nuclear fuels site and is therefore already used by significant levels of HGV's. The HGV traffic from the development would therefore be less significant on this part of the route. However, on the remainder of the roads, the development would add significantly to total and HGV movements. For example, on Roseacre Road including through Wharles village, the development would result in an increase in total traffic by 12% and of HGV's by around 50 %. On Dagger Road the increase would be around 19% in terms of total traffic and 50% in terms of HGV's. Whilst the development would not be permanent, the vehicle movements would take place over a significant period of time and would affect a number of roads

that are not of a standard that would normally be considered suitable to carry large numbers of HGV's.

The applicant has recognised the constrained nature of this road network and has proposed the following mitigation measures to reduce the impacts of traffic of local amenity and other highway users.

The use of Route 3A would require traffic to pass through Wharles village to access the site via Roseacre Road. In order to allow traffic associated with the site construction, drilling, hydraulic fracturing and initial flow testing stages of the project (lasting approximately 2½ years) to avoid passing through Wharles, a variant of Route 3 is suggested by the applicant (Route 3B) which would involve traffic bypassing Wharles village by turning right onto Inskip Road and following this road and Higham Side Road for approximately 1km before turning left to gain access to the exploration site via internal site roads located within DHFCS Inskip site. For the remaining stages (extended flow testing and restoration), it is proposed that all traffic would use Route 3A to access the site via Roseacre Road through Wharles village as traffic during these stages would be lower.

Use of this variant would also require a slightly different design for the exploration site access road and junction with Roseacre Road although the environmental impacts, including hedgerow removal would be similar to that associated with route 3A.

In light of concerns raised by the local highway authority over the potential conflict of two large vehicles passing at certain locations along the proposed HGV route set out in the draft TMP, the applicant has presented an alternative proposal for HGV access to the site and further information to demonstrate the suitability of this alternative proposal.

The proposed alternative inbound HGV route to the site would be from Junction 1 of the M55 and along the B5269 via the A6. This route was included as a possible two-way route in the Transport Assessment (TA) submitted as part of the planning application as Route 4. The assessment of this route in the TA found that it was technically feasible, however as it would pass more residential areas/properties than the preferred route it was not progressed for further assessment at that stage. Subsequent to the production of the TA, the use of the DHFCS Inskip route for site HGVs has been agreed by the Secretary of State for Defence. The alignment of Route 4 passes the entrance to the DHFCS Inskip site. The alternative proposal would therefore also permit traffic to be routed through the DHFCS Inskip route, minimising the impact upon Wharles.

The route described in the draft TMP (and in the application as submitted) was selected as the preferred route according to a number of selection criteria. One of the key reasons was the limited number of residential properties that the route passes. For this reason, the route as initially submitted is maintained as an integral part of the alternative proposal. To address concerns raised by the local highway authority, it is proposed to amend this so that the route is used by site HGVs travelling in one direction only.

The applicant is of the view that the departure of HGVs from the site could be more easily controlled and co-ordinated by site management than the corresponding arrivals. It is therefore proposed to use the permitted route described in the draft TMP as a one-way route for outbound HGVs from the site.

It would be a requirement of the TMP (via a planning condition or unilateral undertaking) that HGVs would use a route through the DHFCS Inskip site during the construction of the exploration site, and the drilling, hydraulic fracturing, initial flow testing and well plugging & site restoration stages. The Ministry of Defence has confirmed that it is prepared to provide access to the DHFCS Inskip site for this purpose and is in the process of concluding final access agreements with the Applicant. This would minimise any traffic effects on the village of Wharles.

Summary of Consultee comments and Representations

Highways Agency (HA): No objection due to there being no significant impact on the strategic road network, namely A585 (T) and M55.

The Campaign to Protect Rural England: No objection subject to conditions requiring mitigation measures for.....transport impacts,

Fylde Borough Council: Objects to the proposal on the grounds that it is contrary to Policy DM2 of the Minerals and Waste Local Plan and Policies EP12, EP26, EP27 and EP28 of the Fylde Borough Local Plan, which are considered to be in conformity with the provisions of the National Planning Policy Framework.

The proposed drilling operations would result in the introduction of considerable traffic onto the rural highway network and would require alterations that would detract from the character of the rural area and cause significant environmental harm, particularly given the distance from the primary highway network and the uncertainty surround the alternative access arrangement through HMS Inskip. In addition to the noise and general disturbance from 24hour drilling operations and associated activity that would be significant, as would the impact on Roseacre Wood.

The County Planning Authority should be also be satisfied that the below and above ground operations will not have any significant adverse impacts in respect of Policies SP2, TR9, TREC10, EP10, EP11, EP13, EP14, EP15, EP18, EP19, EP21, EP22, EP23, EP24 and EP25.

The Councils Environmental Protection Team has advised and made recommendations on a number of issues including:

- Recommend that no HGVs arrive at or leave the site between 23:00 and 07:00.

LCC Developer Support (Highways): Objects to the proposal as initially submitted in view of the increase in traffic, particularly HGV movements would be severe, there would be a material impact on existing road users, particularly vulnerable road users

and overall highway safety of which the potential is considered severe. The reasons for which are set out as follows:

The temporary nature of the proposed works is acknowledged. The comments are in respect of the temporary exploration works only and not any future use that may be sought, since any further appraisal or production phases will be the subject of separate planning applications and assessments.

Highway access routes and Existing Highway conditions

In assessing the impact of the proposals on the highway network the following key elements have been considered:

(i) Proposed access routes

The Transport Assessment presented in the ES, Appendix R1, considers 6 potential HGV routes:

- Route 1 , from the A585 via Thistleton, Elswick and Roseacre;
- Route 2, from the A585 via Elswick, Crossmoor, Inskip and Wharles;
- Route 3A, from the A583 via Clifton, Salwick and Wharles;
- Route 3B, from the A583 and through DHFCS Inskip site;
- Route 4, from the A6 via Broughton, Woodplumpton and Wharles; and
- Route 5, from the A583 via Clifton, catforth and Wharles.

In each case the result is a significant increase in the level of traffic movements on the local network in the vicinity of the proposed Roseacre site and in particular a significant increase in HGV movements. This is a concern given the nature of the local rural lanes, their limitations and constraints to provide suitable means of routeing to access the site from a primary corridor.

The latest Traffic Management Plan (TMP) dated 11th December 2014 indicated that a preferred route for HGV's has been identified by the applicant. This route proposed utilises the DHFCS Inskip site, for the site construction, drilling, hydraulic fracturing and initial flow testing stages of the project, bypassing Wharles. Once initial flow testing has completed, the proposal is for the HGV route to revert to a route through Wharles. In both cases additional traffic management measures are proposed (including passing places at some locations on the narrow corridor).

Feedback has been provided to the applicant in respect of these concerns as a result of the proposals (as presented in the ES and the Traffic Management Plan, TMP) and the additional traffic impact on the local network. In particular, these were set out in an email to the applicants transport consultant (ARUP) on 21st December 2014 in response to the TMP passed to LCC on the 11th December. In summary the email highlighted concerns regarding the following: Site management; operational hours/delivery hours; Vehicle maintenance and inspection; permitted HGV routes; Enforcement of permitted HGV routes; co-ordination of vehicle arrival and departure; Route signing; HGV speeds and stopping; protection of pedestrian, cyclists and equestrians; and plans/route description.

(ii) Traffic Flows - Existing and Proposed

The existing traffic figures on the network and the forecast volume generated by the development are presented in the submitted Transport Statement.

The Environmental Statement (ES) includes a number of tables that highlight 12hour traffic data for HGV's and total vehicle flows (2way); and also peak hour (pm) flow which is compared against the theoretical capacity of the highway. The ES provides levels of generated HGV's and light vehicles for a number of key stages being:

- Site set up/construction,
- Drilling (of wells),
- Fracturing,
- Testing, and
- Decommissioning

The information presented within the ES has been considered and additional analysis of potential generated trips per day for each phase which has resulted in differing numbers of vehicles has been undertaken. Forecasting for each stage includes greater level of deliveries/servicing (HGV's), security, visitors and staff is considered reasonable. In addition the influence of program slippage (daily), as well as uncertainty during the Fracturing stage has been considered.

In addition, the impacts during the peak period/hours has been considered.

The approach has resulted in impacts that are higher; the following table highlights that presented in the ES, LCC forecasts and the net difference.

Comparison of Environmental Statement Daily Maximum Data (2way) and that Considered by LCC Based on the Above Influences								
Stage	Description	ES			LCC			Net Increase
		Light	Heavy	Total	Light	Heavy	Total	
1	Set up/Construction	12	48	60	38	58	96	36
2	Mobilisation	32	40	72	48	46	94	22
	Drilling	36	36	70	50	38	89	19
	Demobilisation	32	50	82	48	53	101	19
3	Mobilisation	22	27	43	36	41	77	34
	Fracturing	30	24	54	35	36	71	17
4+	Impacts lower than those highlighted above							

The LCC flows have been considered and all 6 potential access routes and ultimately the local network to access the proposed site in forming a view on the acceptability or otherwise of the impact. These (LCC) maximum daily flows, highlighted above, are at a level that is a significant cause for concern when location and routing to access the site is considered. The routes proposed (with pass by provision) will still result in conflict compromising the surrounding network and environment used by existing familiar and also unfamiliar users.

The ES included limited information on peak periods, the peak hours for the highest occurring stage which results in the Demobilisation (and cleanout) stage (as highlighted in bold, above), which is expected to last for 2 days has been considered.

Assuming that a daily profile based 30-35% of all HGV's and 45% of all cars arriving and departing in each peak period that lasts up to 90mins with the remaining 30-40% of HGV's and 10% cars being prorated throughout the day. Based on this would result in up to 14HGV and 14 cars movements (2way) during each peak hour.

These (LCC) maximum hourly flows are at a level that are a significant cause for concern when location and appropriate routeing options to access the site without conflict or compromising the surrounding network or environment is considered.

(iii) Impact on Vulnerable Road users, Cyclists, Pedestrians, Equestrians

There is an extensive network of PROW on the local network in the vicinity of the site. Movement of vulnerable road users on this part of the network can be expected to be higher in the summer months. There is limited footway provision on this local network.

The very narrow nature of the lanes on the routes in the local vicinity of the site would suggest that there will be a material impact on vulnerable road users (both familiar and unfamiliar) as a result of the additional traffic and in particular the impact due to a significant increase in the numbers of HGV movements expected.

(iv) Accidents and Safety

Accident Data has been provided in Appendix C of the Transport Statement for a five year period between 2008 and 2013 for each of the six proposed access routes. With consideration for the local network in the vicinity of the site, the expected increase in particular of HGV movements, the narrow rural lanes, location of public rights of way, cycle routes and Equestrian activity, it is considered there are significant potential safety concerns that would have a material impact on safety on this part of the network if the application was approved as presented.

With regard to the proposed Traffic Management Plan Addendum (TMP), dated 13th January 2015 proposes an alternative routing strategy the key changes in the TMP it is considered that there remains a lack of detail in respect to the route description and the issues the proposal creates.

With regard to the proposed inbound and outbound routes it is noted that this had previously been discounted by the applicant. In the ES, Transport Assessment, Route 4 – Access via Broughton, Woodplumpton and Wharles was considered and discounted by the applicant due to the significant number of residential properties potentially affected, the increased length of the route from the SRN and the number of tight bends along the route. Contrary to the route descriptions provided in the "Environmental Statement Appendix R1 – Transport Assessment" that indicates there are no schools or other similarly sensitive land uses along this route, this is incorrect as the route passes the entrance to Broughton Business and Enterprise College, the major secondary school serving the area. It should also be noted that this error also occurs in the description for route 3, where the route passes the entrance to Oakfield House School in Salwick.

The proposed inbound route suggested in the TMP Addendum creates a number of concerns which cannot be ignored.

Route Issues – M55J1 to Roseacre via Broughton

(i) The issues identified on the inbound alternative proposal via the A6 include the following:

- A6 Garstang Rd/B5269 Woodplumpton Lane – If n/b r/t lane is occupied by a turning vehicle a heavy/large vehicle cannot pass in the inside lane, this would include l/t vehicles on to B5269 Woodplumpton Lane;
- Swept paths require HGV's to cross opposing stop line on Woodplumpton Lane. This is a concern as HGV's require its use as a route for a sustained period. It will result in delays on the A6 and will impact on the operation of Broughton crossroads which does suffer from the effects of severe congestion;
- Existing daily and hourly traffic count information (2014) indicates currently 36 HGV's make the left turn during a typical day and only 1 HGV during the peak AM or PM period. The forecast impact is 25 in a day.
- Collisions Record - 14 collisions at A6/B5269 junction;
- B5269 Woodplumpton Lane – Broughton Business and Enterprise College entrance
- B5269/Sandygate Lane – sharp right turn bend with visibility issues (central hatching is present)
- B5269 n of Sunningdale – sharp left turn bend with visibility issues (central hatching is present)
- B5269 @ rail-bridge over WCML – narrowing leads to loss of pedestrian footway on w/b side, visibility issues
- B5269 Newsham Hall Lane
- B5269/Whittle Hill – visibility issues on bend (Whittle Hill is well used as a rat-run to avoid Broughton and M55J1)
- B5269/Hollowforth Lane – sharp left turn bend on junction with visibility issues
- B5269 Bell Fold Bridge over Lancaster Canal – narrow single width bridge (3.6m) at 1:14.5 gradient with a sharp left turn bend immediately after. Visibility issues, bridge is grade 2 listed.
- The applicant has suggested temporary traffic signals could be operated; however, this raises concerns over the duration of the temporary period and safety concerns associated with non-compliance in this rural location.
- B5269 Moorside Lane
- B5269 between Electricity substation and Holly Cottage – narrow pedestrian footway, possible safety issues as no street lighting is present.
- B5269/School Lane – sharp right turn bend with visibility issues
- B5269 north of School Lane – sharp left turn bend with visibility issues
- B5269 @ Blackpole Farm – sharp left turn bend at junction with Eaves lane, no pedestrian footways
- B5269 N of Blackpole Farm – sharp left turn bend with visibility issues followed by sharp right turn bend (central hatching is present) with visibility

issues followed by moderate left turn bend. These are all within a 450m length of road.

- B5269/driveway to Hill House farm – sharp left turn bend with visibility issues
- B5269 N of Hill House Farm – sharp left turn bend with visibility issues and HGV run over on outside of bend.
- B5269 @ Rolling Pin Farm – Sharp left turn bend with visibility issues and farm entrance.
- B5269 W of Cinder lane – sharp left turn bend with visibility issues and residential access
- B5269 @ The Hermitage – right turn bend with visibility issues
- B5269 @ Meadow View – sharp right turn bend
- B5269 @ Woodfolds Barn – left turn bend with visibility issues
- B5269 Preston Road @ Woodfold Bridge – no weight restrictions
- B5269/Catforth Road – right turn bend at road junction with residential/rural industrial entrances with no pedestrian footway.
- B5269 N of Woods Lane – narrow road with soft verges

(ii) Traffic Flows - Existing and Proposed

In my initial response on the draft traffic Management Plan, I indicated that I did not agree with the forecast traffic figures provided in the Transport Assessment and that numbers may be significantly higher. However, the applicant has committed to a maximum of 50 HGV's per day to be enforced through an appropriate planning condition. However, these numbers still represent a concern to the LHA.

The restricted maximum daily flows, proposed above, are at a level that is a significant cause for concern when location and routeing to access the site is considered. The routes proposed (with passby provision) will still result in conflict compromising the surrounding network and environment used by existing familiar and also unfamiliar users.

In terms of maximum hourly flows, these are also at a level that are a significant cause for concern when location and appropriate routeing options to access the site without conflict or compromising the surrounding network or environment is considered.

(iii) Impact on Vulnerable Road users, Cyclists, Pedestrians, Equestrians

There is an extensive network of PROW on the local network in the vicinity of the site and on the proposed inbound and outbound access routes. Movement of vulnerable road users on this part of the network can be expected to be higher in the summer months. There is limited footway provision on this local network.

The very narrow nature of the lanes on the routes in the local vicinity of the site would suggest that there will be a material impact on vulnerable road users (both familiar and unfamiliar) as a result of the additional traffic and in particular the impact due to a significant increase in the numbers of HGV movements expected.

(iv) Accidents and Safety

Accident Data has been provided in Appendix C of the Transport Statement for a five year period between 2008 and 2013 for each of the six proposed access routes. With consideration for the local network in the vicinity of the site, the expected increase in particular of HGV movements, the narrow rural lanes, location of public rights of way, cycle routes and Equestrian activity, it is considered that there are significant potential safety concerns that would have a material impact on safety on this part of the network if the application was approved as presented.

With consideration for the additional information that has been presented in support of the application it is considered that the increase in traffic, particularly HGV movements would be severe, there would be a material impact on existing road users, particularly vulnerable road users and overall highway safety of which the potential is considered severe and therefore unable to support this application.

With consideration for all the information that has been presented to date in support of the application it is considered that the impact of the increase in traffic, particularly HGV movements would be severe. There would be a material impact on existing road users, particularly vulnerable road users and overall highway safety of which the potential is considered severe and therefore unable to support this application.

Should it be minded to grant planning permission the following should be considered and dealt with by planning conditions:

Main Site Access Layout

The proposed main site access is shown in ARUP drawing, CH-001a issue 1, Upgrade of existing access.

The speed limit on Roseacre Road is derestricted, 60mph, in the vicinity of the proposed main site access junction.

The latest proposals suggest that a new crossroads junction will be created with an access opened up opposite the existing access to the DHFCS Inskip site. Once initial flow testing has completed, the proposal is for the HGV route to revert to a route through Wharles.

It is accepted that visibility splays of 4.5m x 215m would be appropriate in each direction and would need to be provided and maintained for the duration of the use of the site access (if the PA were minded to approve). In addition, suitable junction turning radii will be required to allow large vehicles to enter/exit the junction without undue delay on Roseacre Road, as this would impact on the safe operation of traffic. The junction layout considering all access options (whether utilising the DHFCS site access road or not) must allow for an HGV to enter at the same time as a second HGV is waiting to exit.

The layout of the site access road, as shown, is proposed as 4m wide with local widening at the entry. The widened section would allow two HGV's to pass. The layout of the DHFCS site access road, as shown, is as 4m wide This would not allow

two HGV's to pass and would result in large vehicles waiting on the main carriageway (this is not acceptable). Adequate road width would be required exiting/entering the highway for a distance on both the site access road and the DHFCS site access road that includes sufficient space for waiting HGV vehicles to ensure no parked/stationary vehicles on the public highway (at any time).

Advanced warning signs will be required to inform road users of the new road layout ahead and any necessary signing will be incorporated into the detailed design of the main access junction, which would be delivered as part of a s278 agreement were the PA minded to approve this application.

Internal site Layout

Parking on site must be adequate to ensure that site vehicles do not park, even temporarily, on Roseacre Road (or any other local road) or on the site access road thus impacting on the safe and efficient movement of the highway network.

In regard to the dirt and dust created by site construction and exploration works traffic, this will need to be managed. Wheel washing facilities will be necessary and this should be controlled by an appropriate condition.

It is further concluded by LCC Highways that for **all** the information that has been presented to date by the applicant in support of the application that the impact of the increase in traffic, particularly HGV movements would be severe which would result in a material impact on existing road users, particularly vulnerable road users and overall highway safety of which the potential is considered severe. Consequently it is considered that the application cannot be supported.

LCC Director of Public Health: Has undertaken a Health Impact Assessment (HIA) on the two drill sites and identified that the key risks to health and wellbeing of the population from the two proposed sites are a lack of public trust and confidence in the regulatory process and the industry, stress and anxiety from uncertainty about the industry that could lead to poor mental wellbeing; potential noise related health effects due to continuous drilling for at least five months for the initial borehole on each site and for three months for each of the subsequent three boreholes per site (14 months of continuous drilling), and potential health risks due to the presence of mining wastes generated as part of the drilling and hydraulic fracturing process being retained on site if adequate off site treatment facilities are not found.

A number of key recommendations to inform the planning process are made and which include the following in respect of traffic:

13. Further clarification should be sought that any specific risks due to using the MoD site for accessing the Roseacre Wood site have been addressed before any planning permission is granted.
14. A full assessment of the impacts of additional traffic associated with the proposals on road safety should be carried out and appropriate traffic management options considered to address the public concerns, particularly in respect of the Roseacre Wood site.
15. Should planning permission be granted, provision should be made with the Applicant to maintain road safety, particularly on the access routes to

Roseacre Wood site and road safety and any related incidents on the access to both the sites should be monitored.

Elswick Parish Council: An initial objection to the proposal was withdrawn. The Parish Council does not object but makes the following summarised comment in respect of traffic:

- In favour of the preferred traffic route which enables Elswick, a densely populated area to remain outside the routing of the tankers, ensuring the safety of over 200 children living in the village.

Medlar-with-Wesham Parish Council and Kirkham Town Council: The Council's object to the proposal as submitted and requests that it be refused planning permission for a number of reasons including the following related to traffic:

- Increasing vehicle movements, particularly HGV's will exacerbate existing problems along the A585 and at the M55 Junction 3 at peak times.
- Concern regarding future site expansion for production following exploratory phase. An increase in well heads will lead to further noise, traffic and pollution.

Newton-with-Clifton Parish Council: Objects to the proposal as submitted and requests that it be refused planning permission for the following reasons:

- The 'Wharles route' along Lodge Lane, Clifton Lane and Station Road is considered unsuitable for the projected number and type of HGVs and if approved is detrimental to highway safety and parish amenity
- The suggested routes has several potentially hazardous sections to highway safety and is lacking a sufficient number of constructed passing places
- The route comprises a dangerous right turn exit from Lodge Lane, Clifton onto the A583 which could adversely affect highway safety
- Clifton Lane/ Lodge Lane in Clifton are in close proximity to a children's recreational park and children have to cross the road to access the park. The proposed increase in type and volume of traffic is clearly hazardous to their highway safety.
- The site access/egress through Elswick is shorter in distance and as a consequence a reduced environmental impact.

Roseacre, Wharles and Treales Parish Council: Object to the proposal as submitted and requests that it be refused planning permission for a number of reasons including the following related to traffic:

- HGVs will have significant noise impacts causing health and wellbeing impacts including daytime nuisance and sleep disturbance.
- If tankered water is required, it will increase traffic and emissions.
- HGV traffic volumes will have an unacceptable adverse impact on the community through air and noise pollution and general nuisance,

- Strongly dispute existing and proposed traffic data in comparison to own parish traffic survey and predictions, with particular regard to HGV requirements and movements throughout the life of the development.
- HGV movements could be higher subject to HGV availability and the quantity of construction materials, water and flow back fluid to be transported
- The proposed HGV route is unsuitable with restricted sight lines, narrow carriageways, poor road surfaces and no kerb edgings.
- It is physically impossible for HGVs to go round corners without traversing centre line or all of the road in some places along the proposed route.
- Significant safety and conflict risks to all road users including walkers, cyclists, horse riders, children/pushchairs, mobility impaired, and for those accessing local farms, businesses and schools including Salwick school.
- Concern regarding impacts at Wharles village, Shorrocks Cottage, Dagger Road, Salwick Road, Station Road, Moss Lane East and Roseacre Road,
- Traffic increase to Roseacre Road, Inskip Road, Dagger Road will cause significant congestion and hazards to pedestrians and cyclists.
- Potential conflict between HGVs and agricultural machinery e.g. Dagger Lane
- Traffic especially HGVs should be using the primary route network.
- Traffic access and exist should be confined to DHFCS Inskip
- HGV movements should be restricted to 09.30-15.00hrs.
- Contrary to LTP objectives of safe and punctual travel between home and workplace and sustainable transport.
- Passing places for HGV will be restricted at all points along the route and proposed passing places are not suitable or in keeping with the surroundings.
- No consideration of utilisation of passing places at Wharles and Dagger Lane.
- Poor and hazardous road surfaces will be made worst by daily HGV use
- Potential cumulative effect with Westinghouse traffic and displacement of Salwick traffic over canal bridge and conflict at Treales near the school.
- No route identified for oversized vehicles during mobilisation / demobilisation.

Friends of the Earth: has objected to the proposal for a number of reasons including on traffic issues and which are summarised as follows:

- Concern at number of vehicle movements, particularly HGVs on rural single land carriageways (including Inskip Road and Roseacre Road) which have cycle and pedestrian usage.
- Contrary to Policy DM2, due to unacceptable adverse transport impacts from length and number of transport journeys.
- Generation of approximately 23,610 two way vehicle movements of which 11,670 HGV movements, over the lifetime of the project will emit greenhouse gas emissions and air pollution.
- Rural network impacts due to requiring new or widened junctions and access.
- Peak vehicle movements are to be spread throughout the day, but at Balcombe and Barton Moss there was a convoy of vehicles.
- The assessment of cumulative effects of operations at Roseacre Wood and in combination with Preston New Road does not account for operational delay.
- Traffic generated could breach statutory thresholds for noise and air quality.
- HGVs travelling on rural roads with hazardous chemicals or wastewater.

A number of representations include objections to traffic for the following summarised reasons:

- Contrary to Policy SP7 as 200 vehicle journeys a day cannot be safely served proposed means of transport. It will be dangerous. Existing roads are not designed to cope with such traffic.
- Traffic will increase by 100% and will ruin the countryside.
- Significant increase in HGV traffic using roads that were not built for that use.
- One HGV every 3-4 minutes for 12 hours per day with associated air pollution.
- Contrary to Policies SP7 and SP9 as 6 axle HGVs will not be able to turn into Roseacre Wood without the whole vehicle on the wrong side of the road.
- Contrary to Policies SP7 and SP9, as HGVs on village roads / narrow country lanes will impact negatively on daily lives and residents amenity.
- Contrary to Policy SP7 as the development cannot safely be served by the proposed means of access and local road network.
- The roads will not safely serve Cuadrilla's operational needs with regard to size, quantity and nature of vehicles.
- Unacceptable/ Inappropriate use of small narrow rural bumpy lanes around villages of Roseacre, Wharles, Elswick and Treales by HGVs.
- Twisting roads in Roseacre, Wharles and Treales are already used by large and small agricultural vehicles, buses, school buses, delivery vehicles and commuter traffic to Springfields at Salwick and walkers, cyclists, horse riders.
- HGV use of Wharles narrow winding road would be detrimental to Wharles residents through noise, fumes and road disruption.
- The second preferred route along Inskip Road, through the busy centre of Catforth village, along Catforth Road and over the narrow and inadequate canal bridge at Swillbrook is totally unacceptable and ridiculous.
- Unsuitable for lorries to use narrow rural (B) roads as the access route to the site, especially Dagger Road and Roseacre Road, HGVs will not be able to pass safely and will endanger other road users.
- No sight lines for oncoming traffic on Dagger Road making it particularly dangerous. A HGV could not overtake a cyclist or horse rider.
- In Bucks Wood, Station Road has a significant hazard from poor sight lines when elevated, with a steep fall-off into the canal below.
- New rail bridge at Salwick is only 5.5m wide with steel barriers, so potential for accidents if a tanker meets a car and caravan going to a caravan site.
- HGV traffic from Clifton to Wharles will result in increased traffic along Inskip Road to Treales, which will impact the school and Salwick commuters.
- Clifton village is a 20mph zone, will suffer road vibration from heavy lorries.
- Contrary to SP7. Elswick village will have up to 50 HGVs thundering through the village each day, with noise and air pollution and posing danger to children as there are no safe road crossings in the village.
- Traffic management plan controlling flow of traffic through Wharles will severely impact on our local amenity.
- Appalled that Treales will be turned into a glorified layby.
- DHFCS Inskip route would greatly reduce traffic and noise problems.
- There is no guarantee of use of DHFCS Inskip and residents have previously been warned about site dangers so is it a feasible option for site traffic.

- Object to the use of the A585 to junction 3 of the M55 for 75% of all HGV movements as it is seriously overloaded and has to take traffic from new housing at Wesham, Kirkham, Wrea Green and Warton, with serious existing problems from access, noise and pollution.
- Increased traffic on M55, A585 and A583. 'A' roads are extremely busy and dangerous roads already.
- Contrary to NPPF as there will be conflict between HGVs and other road users including pedestrians and cyclists.
- Contrary to Policies SP5 and SP9 as the local roads are used by hundreds of cyclists, horse riders, runners and pedestrians including children who will be at serious risk of injury and will lose an important social amenity.
- HGV traffic will make villages and country lanes a no-go area for cyclists, horse riders, runners, walkers, dog walkers and vulnerable road users.
- Risks to children travelling on school buses to local schools, from site accidents, road accidents and disruption from travel delays.
- Concerned for safety of children given increased traffic.
- Concern for walking on roads where there are no paths making it dangerous to walk between villages.
- Lack of pavements/narrow pavements will lead to intimidation of pedestrians.
- Danger of being pushed into dykes.
- Road safety risks from collision, skidding, failure to manage manoeuvres, weather and intimidation to other road users have not been addressed.
- Roads are not wide enough for 2 HGV's.
- Passing places on single track roads will not solve the problem and could cause accidents and deaths.
- Fatalities in recent years on country lanes will be increased by HGV traffic.
- It will cause disruption on narrow local roads, especially in summer months when the roads are used by visitors and tourists.
- Horse riders will not be able to ride down quiet lanes around Wharles as HGVs will be using them for 12 hours a day.
- Will cause major problems from confrontations between HGV and road users when unable to manoeuvre.
- Existing roads already have poor road surfaces with potholes and fractures which will be made worse by HGV usage, creating more danger for all.
- Vibrations and verge degradation has not been addressed.
- Cuadrilla traffic figures are incorrect, volumes are understated.
- Cuadrilla traffic assessment done in winter months so does not reflect higher traffic usage in summer including cyclists and horse riders.
- Lots of people use these roads already, major holdups in summer months.
- Who will monitor and enforce that the HGVs use a certain route?
- Traffic management system will cause great inconvenience.
- Improvements to road infrastructure through new roads and/or widening are not an acceptable solution, as following works (for profit) they will be abandoned for the ratepayer to maintain.
- Dangers of transporting toxic waste on roads where families live/travel
- Risk of spillage of hazardous material from HGVs in accidents on narrow road and/or with other motorists.
- Potential hazard from toxic spillage from use of narrow roads.

- Cyclists will be affected by spillages from vehicles leaving the site if inadequate washing down of vehicles.
- Application is contrary to Lancashire Local Transport Plan aims and goals.
- The sites should be located with access directly onto a main road.
- HGV's turning off the A6 at Broughton crossroads onto the B 5269 will cause further congestion and disruption due to the constrained nature of the cross roads and the need for HGV's to cover both carriageways when turning.
- There is a risk of accidents on Woodplumpton Lane due to the volume of traffic /parked cars associated with the High School.
- The single carriageway hump back Bellfold Bridge is unsuitable for high volumes of HGV traffic. 6 axle articulated trucks would take up the whole road to transit the bridge causing oncoming traffic to back up.
- Lewth Lane is narrow and winding with numerous right-angled bends and switchback corners leading to risk of conflict and accidents between passing vehicles.
- There is a risk of contamination of watercourse in the event of accidents involving vehicles carrying hazardous substances.
- The road surface is already damaged and would be damaged more.
- Potential risk of damage to buildings (Grade II listed) and other properties.
- Danger to pedestrians due to lack of footways on Higham Side Road.
- Inskip route passes a primary school, nursery school and high school with a total in excess of 1300 children. There is also sheltered accommodation with 90 residents.
- There are over 2000 residents in Broughton 98% of whom live adjacent or within 0.1km of the route.
- Broughton village is a 'Red Zone' in terms of air quality content.
- Cyclists using the Guild Wheel and B5269 will be at risk with an increase in HGV movements.
- The use of the proposed route is contrary to Policy 30 of the Central Lancashire Structure Plan, Policy 3c, 16 and 29c of the Central Lancashire Core Strategy and Policy ST2 of the Publication Version of the Preston Local Plan.

Policy

The policies of the NPPF support sustainable development as does policy NPPF 1 of the Joint Lancashire Minerals and Waste Local Plan – Site Allocation and Development Management Policies. Policy DM2 of the Joint Lancashire Minerals and Waste Local Plan – Site Allocation and Development Management Policies seeks to ensure that proposals do not have an unacceptable impact on amenities.

Assessment

The Roseacre Site is served by a network of minor and unclassified roads. The route as proposed has been chosen due to it having the lowest impact on the number of residential properties, narrow roads, accident history and presence of schools and general unsuitability for HGV traffic.

The route would be accessed from the A583 to the south close to Clifton village. Traffic would then use Clifton Lane, Station Road, a short section of Treales Road, Dagger Road, Salwick Road, Inskip Road and Roseacre Road to reach the site, a distance of approximately 9km from the A583 all of which are unclassified.

The peak traffic flows will occur as a result of combined traffic associated with activities at more than one well. The total traffic numbers in the ES are based on such conditions. The peak traffic generated would be around 50 two way HGV movements per day which would occur for around one week on eight occasions over the life of the project.

Whilst the development would not be permanent, the vehicle movements would take place over a significant period of time and would affect a number of roads that are not of a standard that would normally be considered suitable to carry large numbers of HGV's.

The applicant has recognised the constrained nature of this road network and has proposed mitigation measures to reduce the impacts of traffic of local amenity and other highway users.

To minimise impacts on the village of Wharles access is proposed through the MOD land at Inskip. To ease traffic movements on Dagger Road which is too narrow to accommodate two HGV's passing, five passing places are proposed to provide localised widening to between 5.5 and 6.5m thereby allowing two HGV's to pass. In all cases the widening is proposed to be achieved using highway verge without removing roadside hedgerow.

To address concerns regarding vehicle access a traffic management plan (TMP) has been proposed and includes the following:

- A code of conduct for all drivers.
- Limiting traffic to the permitted route with disciplinary action against all drivers who do not comply.
- Restriction in hours of delivery.
- Co ordination of arrival and departure times of HGV's including planning of arrival and departure times for vehicles to control the risk of HGV's meeting along the route.
- Use of a layby on the A583 in order to hold incoming HGV's until such time as site management have confirmed that the route is clear of outgoing HGV's.
- During peak times, it is proposed to operate patrol cars between the site and the A583 in order to provide 'live' information to co ordinate arrival and departure of HGV's.
- Use of convoys during certain circumstances.
- Use of signage.
- Undertaking of a highway condition survey to monitor the impacts of traffic on the route.

Some of the measures proposed would clearly be of assistance to mitigate the impacts of traffic. However, many of the proposals, such as co-ordination of HGV movements and convoying, are only necessary due to the constraints of the highway

route and would be difficult and complex to implement. Even if the applicant is able to control the passage of site traffic, the same does not apply to the other HGV traffic which uses the route. Due to the nature of the roads used to reach the Roseacre site, there may still be highway impacts such as verge over running and conflicts with other traffic even if the measures proposed in the traffic management plan to control site traffic are successful.

There has been considerable opposition to the use of this highway network to facilitate the development by Fylde Borough Council, parish councils, opposition groups and individuals. An assessment of the application as proposed, the alternative access through the MOD land and an assessment of the proposed TMP, has been undertaken by LCC Highways and to which a number of concerns were expressed. To address these concerns the applicant has presented an alternative proposal for HGV access to the site and further information to demonstrate the suitability of this alternative proposal.

The alternative proposal is to use a one-way route to and from the site for HGVs utilising the exit as proposed, but directing vehicles in via Woodplumpton and Broughton to the A6. The view of the applicant is this would significantly reduce the probability of two HGVs meeting on sections of the highway with a constrained width. The applicant also believes it would halve any increase in site related HGV traffic flows along the proposed route.

The applicant is of the view that the departure of HGVs from the site could be more easily controlled and co-ordinated by site management than the corresponding arrivals. It is therefore proposed to use the route described in the draft amended TMP as a one-way route for inbound HGVs from the site.

Accident Data has been provided in Appendix C of the Transport Statement for a five year period between 2008 and 2013 for each of the six proposed access routes (including the latest amendment now submitted). With consideration for the local network in the vicinity of the site, the expected increase in particular of HGV movements, the narrow rural lanes, location of public rights of way, cycle routes and Equestrian activity, it is considered that there are significant potential safety concerns that would have a material impact on safety on this part of the network if the application was approved as presented.

The County Council's assessment concludes that notwithstanding the temporary nature of the proposed works and the mitigation and management measures proposed, the proposal as submitted would be severe in view of the increase in traffic (particularly HGV movements) during restricted maximum daily flows and maximum hourly flows. Notwithstanding the applicant's commitment to a maximum of 50 HGVs per day, these would still be at a level that would give rise to a significant cause for concern when location and routing to access the site along the route proposed (including with passing spaces) would still result in conflict. This would compromise the surrounding network and environment used by existing familiar and unfamiliar users.

There would also be a material impact on existing road users, particularly vulnerable road users and overall highway safety of which the potential is also considered to be severe, a view reflective of those in opposition.

There is an extensive network of PROW on the local network in the vicinity of the site and on the proposed inbound and outbound access routes. Movement of vulnerable road users on this part of the network can be expected to be higher in the summer months. There is limited footway provision on this local network.

The very narrow nature of the lanes on the routes in the local vicinity of the site would suggest that there will be a material impact on vulnerable road users (both familiar and unfamiliar) as a result of the additional traffic and in particular the impact due to a significant increase in the numbers of HGV movements expected

With consideration for the additional information that has been presented in support of the application it is considered that the increase in traffic, particularly HGV movements would be severe, there would be a material impact on existing road users, particularly vulnerable road users and overall highway safety of which the potential is considered severe and therefore unable to support this application.

With consideration for all the information that has been presented to date in support of the application it is considered that the impact of the increase in traffic, particularly HGV movements would be severe. There would be a material impact on existing road users, particularly vulnerable road users and overall highway safety of which the potential is considered severe and therefore unable to support this application. The alternative has not been advertised as further information but it is anticipated that further representations objecting to such a change would be received. Irrespective an assessment of the revised TMP has been carried out by LCC Highways and it is concluded that the increase in traffic, particularly HGV movements would be severe, there would be a material impact on existing road users, particularly vulnerable road users and overall highway safety of which the potential is considered severe.

It is further concluded that for **all** the information that has been presented to date in support of the application that the impact of the increase in traffic, particularly HGV movements would be severe. There would be a material impact on existing road users, particularly vulnerable road users and overall highway safety of which the potential is considered severe and that the application cannot be supported.

Conclusion

To summarise on highways issues, the Roseacre site is served by a network of minor unclassified roads.

In order to make the development acceptable a number of mitigation measures are required in order to address the highway and local amenity impacts of the development. If such mitigation measures cannot be successfully implemented or would have their own environmental impacts, then it may be considered that the highway impacts of the development would not be acceptable.

In this case, the main impact of the development arises from the use of the route through Wharles. Whilst the applicant has proposed measures to avoid such traffic impacts and provided certainty that the alternative route would be available and that the unacceptable impacts would not occur through Wharles, it is considered that even with the passing places and traffic management plan proposed and amended, such measures are only required due to the constraints of the affected highways and the measures would either have their own environmental impacts or insufficient confidence can be given to their success.

Notwithstanding the proposed amendments to the TMP and the proposed amended routing to create a one way system, an assessment concludes that the increase in traffic, particularly HGV movements, would be severe, there would be a material impact on existing road users, particularly vulnerable road users and overall highway safety of which the potential is considered severe.

It is concluded that for **all** the information that has been presented to date by the applicant in support of the application that the impact of the increase in traffic, particularly HGV movements would be severe and which would result in a material impact on existing road users, particularly vulnerable road users and overall highway safety of which the potential is considered severe. Consequently it is considered that the application cannot be supported.

In these circumstances, it is considered that the development would give rise to unacceptable impacts on existing road users that would be contrary to Policy DM2 of the Lancashire Minerals and Waste Local Plan.