

Appendix 11

Landscape and Visual Amenity

Proposal

The applicant has undertaken an assessment of the landscape and visual amenity of the site and area within a 5km radius. As part of the EIA an assessment has been undertaken of the impacts of the proposal on the landscape and visual effects. It concludes there would be no significant landscape effects although there would be very localised direct change due to the development temporarily altering a very small proportion of the local character area during construction of the well pad but no effect during other phases. The visual findings conclude there would be significant adverse visual effects arising during the drilling, hydraulic fracturing and flow testing phases. Eleven of the principal viewpoints would experience significant adverse visual effects. Nine of these are public rights of way receptors, one with a recreational viewpoint along with two residential receptors (a group of five residences have been assessed as one receptor at Stanley Farm since all would experience the same effect. No significant adverse visual effects were judged to occur on any receptor more than 900m from the site during any phase of the project.

The Roseacre site is currently in agricultural use and is surrounded on all sides by agricultural pasture and arable fields. The field boundaries in the area are formed by native hedgerows, largely without mature trees except for around farms and individual properties. Roseacre Wood, a mature deciduous woodland is located adjacent to the proposed access road and is 200m to the east of the proposed exploration site compound but is adjacent to the access road. The land surrounding the site is generally flat at an elevation of around 17m OAD. The site is not covered by any national landscape designations, the Forest of Bowland AONB being the nearest such area and 11 km east of the site. A dominant landscape feature in the area is the tall radio masts and other infrastructure that form part of the DHFCS Inskip site. A public footpath passes approximately 350m to the west of the site from which views of the site are currently gained.

In terms of landscape impact, the development would require the removal of approximately 30m of hedgerow and the lowering to 1 metre of a further 280 length of hedgerow on the western side of Roseacre Road in order to form the visibility splays at the site access. A further short length of hedgerow would also need to be removed where the access road enters the proposed exploration site compound. On the eastern side of Roseacre Road where the access road would enter the DHFCS Inskip site, similar amounts of vegetation removal / lowering would be required. Limited hedgerow removal / lowering would also be required where the DHFCS route exits onto Inskip Road. The only other vegetation removal that would be required is a small number of trees on the northern edge of Roseacre Wood in order to construct the site access road.

The compound and access road would be surfaced with tarmac / hardcore which would form the base for the equipment to be used for the exploration operations. The soils stripped from the area of the compound would be used to form mounds on the northern and southern boundary of the site up to 4m in height. The site would be

secured by 4m high weld mesh fencing located on the outside of the perimeter bunds which would also extend along the length of the access road. The applicant also proposes screen planting immediately adjacent to the fencing to provide additional landscaping.

A number of shipping containers (single storey in height) to provide for storage of equipment, workshops and office / site welfare would be required but it is likely that these elements of the development would have a relatively low visual impact from the main viewpoints given the screening provided by the existing hedgerows and Roseacre Wood and perimeter bunding. The main elements of the development in terms of visual impact would be the drilling rig which would be up to 53m in height depending on the type of rig used, various cranes used for assembly of the rig and other equipment, a well services rig of 36m height, two sand storage silos each 15m in height and two flare stacks of around 10m in height. Not all of these elements would be present at the same time but the worst case from a visual impact perspective would arise when the drilling rig is being used in combination with the 36m high rig associated with the initial flow testing. This would occur for approximately four, three month periods over the duration of the development.

Policy

The NPPF states that the planning system should contribute to and enhance valued landscapes and that developments should include appropriate landscaping. Policy DM 2 of the Lancashire Minerals and Waste Local Plan states that development for minerals operations will be supported where it can be demonstrated to the satisfaction of the mineral planning authority that all material environmental impacts can be eliminated or reduced to acceptable levels. The policy requires that proposals should make a positive contribution towards factors such as landscape character.

Policies SP2 and EP11 of the Fylde Local Plan relate to development in country side areas and building design and landscape character.

Summary of Consultee comments and Representations

LCC Landscaping: Focusing on a 2.0km radius from the centre of the application site, the elements of the development which have the most potential for creating significant landscape and visual impacts are drilling, hydraulic fracturing and flow testing operations which involve the use of a drilling rig (up to 53m high), fracturing rig, well services rig and flare stacks.

It is recommended that additional photomontages for viewpoints 3, 5 9 and 14 to a prescribed methodology are submitted as the submitted images do not reflect the true scale of the proposed development, with the rig appearing approximately 3x smaller than it will in reality.

The site falls within the County Council's Coastal Plain landscape character type and The Fylde landscape character area, which are characterised by rural farmland, hedgerows, shelter belts and field ponds, slightly undulating topography, long views across the landscape and a strong sense of openness. The application site has a strong rural farmland character which is enhanced by the intactness of key features

such as hedgerows, shelter belts and field ponds. The gently undulating topography and the low levels of tree cover afford long views over the rural landscape and create a strong sense of openness. There are some significant landscape detractors which affect the landscape character including electricity pylons, large barns, wind turbines and a plethora of communication masts which are a dominant feature in views to the east of the site. The application site clearly lies within an area where tall vertical structures have become a key feature of the local landscape character.

A detailed assessment of the potential impacts and significance on the landscape and receptors, taking account of the development site and area landscape characteristics has been undertaken with the following summarised observations:

- Moderate to major significance on views from Roseacre Road, Old Orchard Farm and Public Rights of Way 5-13-FP3, 4 and 5 and on local landscape amenity
- Minor to moderate significance on views from Public Rights of Way 5-13-FP1 and 2
- Minor significance on views from Wharles and landscape fabric and cumulative effects with Preston New Road.
- Negligible to minor significance on views from Roseacre, Seaswick House, Roseacre Lane, Church Road and Moorside and on the Coastal Plain Landscape Character Type and Fylde Landscape Character Area
- Negligible significance on the landscape value of the site and wider landscape.

The assessment of the proposal has also taken account of the effects of time, with regard to the duration of the landscape effects, and has also taken account of mitigation proposals which will reduce the impact of low level site structures.

The proposed development would have some temporary but reversible localised landscape and visual effects of moderate-major significance. However, these are not considered to significantly affect the overall character of the Coastal Plain Landscape Character Type or The Fylde Landscape Character Area. In addition, the likely effects of the development proposals on the landscape's value and fabric would not be significant and, there would be no significant cumulative effects. For these reasons, the overall temporary effects of the proposals are deemed to be acceptable in landscape terms.

The applicant's options for mitigating the most significant localised effects are limited due to the height of the drill well (potentially 53m), characteristics of the receiving landscape and the 3 year operations period which does not leave enough 'growing time' for planting to have any significant impact. So, whilst there is much about the proposals which could be deemed acceptable in landscape terms, especially in the context of the wider landscape, the applicant needs to address the likely significant localised effects to ensure that overall, this form of temporary industrial development is successfully assimilated into the rural landscape. The most appropriate way of achieving this would be through implementation of the additional mitigation measures outlined above.

To address previous concerns relating to noise at the closest sensitive receptors during night time hours, the applicant, as part of the submission of further information to reduce noise levels and noise impacts, proposed additional noise attenuation measures. These are in the form of solid barriers around the site and around individual pieces of plant and equipment. The effect of these would be to reduce the noise levels to a maximum of 39 dB L_{Aeq} at night. It is also proposed to limit the height of the drilling rig to 36m. A revised assessment of the landscape impacts of the proposed measures has been carried out by the applicant and who feels that such measures would not only assist in the mitigation of noise during day and night time operations but would also reduce the visual impact of the site further, particularly with a lower height drilling rig.

An assessment of the ES and the further information has been carried out. The assessment finds that given the undulating and open nature of the landscape, the development would have some significant landscape impacts but only for a limited period and in the main restricted to locations near to the site, in particular properties at Old Orchard Farm and Stanley Farm. The development would not affect any conservation areas, listed buildings or protected trees. It would not require the removal of any significant existing landscape features and therefore any landscape change would not be of a permanent nature. The development is therefore considered acceptable in terms of landscape impacts in the long term. However, it is considered that any planning permission should be subject to conditions relating to the colour of the drilling rigs and other equipment, the design and location of the perimeter landscaping mounds, the colour and design of fencing, lighting design and control and details of the restoration and aftercare of the site to include the replanting of any hedgerows that are removed and restoration.

It is therefore concluded that in the short term the proposal would generate significant localised landscape and visual impacts and which would be unavoidable due to the nature and duration of the proposal. However, whilst the duration is over an extended period of time, it would still be temporary. Mitigation measures are proposed and there is scope to further mitigate the likely effects by reducing the height of the drilling rig to a maximum of 35m; finishing the drilling and fracturing rigs in a more suitable colour than as proposed (red/white) and to finish the various cabins and other temporary buildings in a more appropriate colour than proposed (blue) albeit the additional proposed noise mitigation measures of employing solid barriers would reduce the visual impact of the site. Nevertheless, subject to such conditions it is considered that the proposal would not be contrary to Policy D2 of the Lancashire Minerals and Waste Local Plan and whilst it could be seen as contrary to Policy EP11 of the Fylde Local Plan, the proposed development, due to its nature for a temporary period it could not be expected to be designed in a way to meet the requirements of this policy.

The Campaign to Protect Rural England: No objection subject to conditions requiring mitigation measures for landscape and visual amenity.....

Medlar-with-Wesham Parish Council and Kirkham Town Council: Object to the proposal for a number of reasons including the following summarised reasons in respect of impact on landscape:

- The visual impact of the development cannot be minimised.
- Detrimental impact on property values and insurance premiums.
- Concern regarding future site expansion for production following exploratory phase. An increase in well heads will lead to further noise, traffic and pollution.

Roseacre, Wharles and Treales Parish Council: Objects to the proposal for a number of reasons including the following summarised reasons in respect of impact on landscape:

- Contrary to Policy SP2 and NPPF due to the huge industrial scale, associated utilities and infrastructure and thousands of HGV movements on narrow lanes
- Cuadrilla has not adequately assessed alternative sites. The development should be located in a SP1 site which has appropriate infrastructure.
- Contrary to Policy EP28 due to sky glow. As no mitigation is possible night-time operations should not be permitted.
- Adverse impacts on rural tourism, leisure and countryside character.
- Visual impact of the development could be reduced by enclosure of site works, horizontal rig and a waste methane generator instead of a flare stack.

Roseacre Wood Awareness Group: Object to the proposal for a number of reason including the following summarised reasons in respect of landscape:

- The site infrastructure including the 53m high rig will be a major blight on the landscape and damage the rural character and affect tourism.
- The site will be visible from several houses, to road users and from local natural landmarks e.g. Beacon Fell, Longridge Fells, Carr Hill.
- Contrary to Policy EP16 as EP28 as light pollution will cause harm to both local residents and wildlife and will distract passing road users.
- The light pollution will transform an idyllic countryside area into an industrial zone with loss of social amenity. Detrimental to tourism and property prices.

Many of the representations received object to the visual impact of the site and the potential impact of long term development and the cumulative impacts of more sites. The objections are summarised as follows:

- Need 30,000 wells to extract the gas.
- If goes into full production, farmland and rural spaces will be lost to hundreds of pads, gas processing sites, pipelines, compressor stations and new roads.
- Industrialisation of the rural environment and Lancashire countryside.
- Others sites on brownfield land should have been considered.
- Contrary to NPPF paragraph 112 and Policy CS4, as applicant has not demonstrated that the development could not be undertaken elsewhere due to no viable alternatives.
- Contrary to Policy DM2 as the development does not take account of the deviation from the baseline environmental conditions of a quiet rural area.
- Contrary to Policies SP2, SP5 and SP9 as it is not appropriate in a rural area and will prejudice the rural and undeveloped character and appearance of the countryside and impact rural communities.

- The proposal will destroy /change the beautiful Lancashire/Fylde countryside.
- Totally unsuitable in the heart of rural Fylde.
- Destruction of the rural habitat. The countryside should be preserved and cherished now and for future generations.
- Need to preserve the idyll rural landscape and rural heritage.
- Contrary to objectives to limit development in open countryside to that appropriate to a rural area, due to physical size, drilling rig height, fracking structure and security fencing.
- The development will visually split the two villages of Roseacre and Wharles.
- Need to examine sites for evidence of early settlements before it is lost.
- Environmental damage from construction and operation.
- The development will be an eyesore in pleasant fields.
- The size and scale of the development will be far greater than any agricultural development and will have an adverse effect.
- Visual nightmare with 53m high rig and site the size of a floodlit football pitch.
- Contrary to Fylde Borough Council's objective 1.50, no.2 - visually intrusive due to 53m high rig, the scale and size and distraction to motorists.
- A 53m high rig, comparable to Nelson's Column, grotesque in a country field.
- How is a 53m high rig and ugly noisy intrusive monstrosity allowed when planning refused for smaller structures/buildings in the area?
- How can wind farms and turbines be rejected as eyesores whilst this hideous drilling may be allowed?
- Impact of 4m high security fence.

Assessment of impacts

In terms of policy, the NPPF states that the planning system should contribute to and enhance valued landscapes and that developments should include appropriate landscaping. Policy DM 2 of the Lancashire Minerals and Waste Local Plan states that development for minerals operations will be supported where it can be demonstrated to the satisfaction of the mineral planning authority that all material environmental impacts can be eliminated or reduced to acceptable levels. The policy requires that proposals should make a positive contribution towards factors such as landscape character.

The County Council produced a landscape character assessment as part of the Lancashire Structure Plan which has been retained for development control purposes. The assessment defines the key features of each landscape character tract and identifies forces for change and policy to preserve landscape character. The site is located within the Fylde Coastal Plain landscape character tract, the key features of which include the large arable fields giving long views over the landscape, areas of semi natural woodland along brooks and watercourses and meandering rural lanes. The assessment identifies that communications masts and other prominent developments will be particularly prominent on local skylines.

In terms of landscape impact, it is important to recognise that the proposal is for a temporary exploration site for a period of approximately four years after which the site would be restored. Whilst there will be landscape impacts arising from the development, very few natural features such as trees or hedgerows would be

removed and therefore it should be possible to restore the site to its existing condition. The long term impacts on landscape should therefore be minor

The development would have some impact on the character of Roseacre Road mainly from the removal and reduction in height of hedgerow on both sides of the road and from the construction of the new access road and security fencing. This would have an urbanising impact on this existing rural road but only for a limited length and following completion of the development, the access and hedgerows could be reinstated to their existing condition.

The earth mounding on the northern and southern boundary combined with the screening provided by the existing Roseacre Wood would also mitigate some of the visual impacts of the development including the perimeter fencing, site buildings and the items of plant and equipment that are below four metres in height. The applicant is also proposing to undertake planting around the boundaries of the site. However, it is considered that this would only make a limited contribution to the landscaping of the site given the small areas of land proposed and the lack of time for any planting to mature.

The main visual impacts would arise from the drilling rig and other tall items of plant required to drill the borehole and undertake the fracturing operations. Due to the height of these elements the visual mitigation provided by bunding and existing natural features would be limited and therefore the rig would be a highly visible feature especially given the flat landscape of the area. However, the visual impacts arising from the tallest elements of the plant would be intermittent over the four year period of the development as it is likely that the drilling rig would be removed from site after each borehole is completed. The landscape impact is also mitigated to some extent by the presence of the radio masts and other equipment belonging to the DHFCS Inskip site which are a prominent feature in this area.

One of the main visual impacts would arise from the lighting used as part of night time working. During the drilling operations, the site would be operational on a 24 / 7 basis for drilling periods where lighting would be required on the rig and around many ground structures. The site is in a very rural area and therefore at present experiences very little light pollution. Whilst it may be possible to reduce the impacts of lighting by shielding and appropriate direction, the lighting required during the drilling operations is still likely to be a particularly noticeable impact in this area but only during the limited period of drilling operations.

An assessment of the ES and the further information has been carried out. The assessment finds that given the undulating and open nature of the landscape, the development would have some significant landscape impacts but only for a limited period and in the main restricted to locations near to the site, in particular properties at Old Orchard Farm and Stanley Farm. The development would not affect any conservation areas, listed buildings or protected trees. It would not require the removal of any significant existing landscape features and therefore any landscape change would not be of a permanent nature. The development is therefore considered acceptable in terms of landscape impacts in the long term. However, it is considered that any planning permission should be subject to conditions relating to the colour of the drilling rigs and other equipment, the design and location of the

perimeter landscaping mounds, the colour and design of fencing, lighting design and control and details of the restoration and aftercare of the site to include the replanting of any hedgerows that are removed and restoration.

It is concluded that in the short term the proposal would generate significant localised landscape and visual impacts and which would be unavoidable due to the nature and duration of the proposal. However, whilst the duration is over an extended period of time, it would still be temporary. Mitigation measures are proposed and there is scope to further mitigate the likely effects by reducing the height of the drilling rig to a maximum of 35m; finishing the drilling and fracturing rigs in a more suitable colour than as proposed (red/white) and to finish the various cabins and other temporary buildings in a more appropriate colour than proposed (blue) albeit the additional proposed noise mitigation measures of employing solid barriers would reduce the visual impact of the site. Nevertheless, subject to such conditions it is considered that the proposal would not be contrary to Policy D2 of the Lancashire Minerals and Waste Local Plan and whilst it could be seen as contrary to Policy EP11 of the Fylde Local Plan, the proposed development, due to its nature for a temporary period it could not be expected to be designed in a way to meet the requirements of this policy.

In summary, given the flat and open nature of the landscape, the development would have some significant landscape impacts but only for a limited period and in the main restricted to locations near to the site, in particular the footpath to the west of the site and Roseacre Road. The development would not require the removal of any significant existing landscape features and therefore any landscape change would not be of a permanent nature. The development is therefore considered acceptable in terms of landscape impacts. However, it is considered that any planning permission should be subject to conditions relating to the colour of the drilling rigs and other equipment, the design and location of the perimeter landscaping mounds, the colour and design of fencing, lighting design and control and details of the restoration and aftercare of the site to include the replanting of any hedgerows that are removed.

The applicant has also proposed to undertake some works to replant gaps in existing hedgerows around the site and to undertake management of existing hedgerows so that they are allowed to grow to height providing increased screening. Due to the time planting takes to mature any planting works would not mitigate the visual impacts of the development. However, the planting works including management of existing hedgerows would help to provide some local landscape enhancement which would offset some of the impacts arising from the removal of any vegetation and would meet the requirement in policy DM2 of the LMWLP to make a positive contribution to landscape character.

Conclusion

It is concluded that the proposal would generate significant localised landscape and visual impacts and which would be unavoidable due to the nature and duration of the proposal, particularly at the nearest receptors on public rights of way and at the nearest residential properties at Orchard Hall Farm and Stanley Terrace. However, whilst the duration is over an extended period of time, it would still be temporary.

Mitigation measures are proposed and there is scope to further mitigate the likely effects by reducing the height of the drilling rig to a maximum of 35m; finish the drilling and fracturing rigs in a more suitable colour than red/white as proposed and to finish the various cabins and other temporary buildings in a more appropriate colour than blue as proposed. Subject to such conditions it is considered that the proposal would not be contrary to Policy D2 of the Lancashire Minerals and Waste Local Plan and whilst it could be seen as contrary to Policy EP11 of the Fylde Local Plan, the proposed development, due to its nature for a temporary period it could not be designed in a way to meet the requirements of this policy.