

ITEM SUBJECT OF A SITE VISIT

Item No: a1

Application Ref.	23/01135/FUL
Application Type	Full Planning Permission
Site Address	Land At High Marnham Power Station, Power Station, Access Fledborough Road, High Marnham, Nottinghamshire
Proposal	Full Planning Application for the Construction and Operation of A Prototype Facility for the Production of Hydrogen from Ammonia, and Associated HGV Loading and Unloading Areas, Staff Welfare Building, Boundary Fencing, Internal Access Roads, External Lighting and Works (EIA Development)
Case Officer	John Krawczyk
Recommendation	GTD - Grant
Web Link:	Link to Planning Documents

THE APPLICATION

SITE CONTEXT

This site is located within the former High Marnham Power Station site which was decommissioned in 2003. The site lies on the base of one of the former cooling towers to the south east of the site.

The site is bounded by nature trees to the south and east and is bounded to the west by the National Grid substation.

The application site itself is brownfield, previously developed, land and lies within Flood Zone 1, land that has the lowest risk of flooding.

PROPOSAL

This application proposes the construction of a prototype plant for the production of hydrogen from ammonia. The plant is designed to produce hydrogen from ammonia through a process termed 'cracking' and hence the plant is generally referred to as an 'ammonia cracker'. Ammonia has the attribute of high capacity for hydrogen storage, based on its molecular structure. The input of energy causes the hydrogen to be separated from nitrogen during a process known as cracking. The hydrogen is collected and stored whilst the nitrogen – a non-toxic, non-greenhouse gas – is released to the atmosphere.

The prototype plant includes the following plant and equipment:

- Vessels
- Pumps
- Compressors

- Tanks
- Valves and control equipment houses in permanent steel support structures
- Hard standing vehicular access track, ammonia tanker unloading area and hydrogen tanker loading area

Provision is made within the plant for a welfare facility which will have a kitchen/seating area and will be for staff operating the plant. This facility comprises a portacabin structure with a floor area of 11 m² internally.

20 no. pipes/flues would be included with the plant standing 5.6 metres from ground level. 2 no. flues located on the ammonia tank stand 6.6 metres from the ground.

In terms of its operation, the prototype facility will use ammonia to deliver 200 kg of hydrogen per day, which will be loaded directly into 1 no. 300 kg capacity mobile HGV tube trailer for dispatch. The plant will produce approximately 3 tanker loads per week.

The proposed operation is summarised as follows:

- 1 no. tanker load of ammonia enters the site via the internal access roads leading from Fledborough Road.
- The liquid anhydrous ammonia is unloaded and stored in a pressurised tank, which evaporates and decompresses before entering the ammonia 'cracker' as a gas.
- In the cracker, the ammonia is heated by an electrical heater and is "cracked" into hydrogen, nitrogen and trace ammonia
- The product is cooled to ambient temperature and compressed before entering a hydrogen purification unit, removing the nitrogen and any unreacted ammonia.
- High purity hydrogen is obtained and compressed for storage in 1 no. mobile hydrogen storage tank (HGV tube trailer) before dispatch.

DEVELOPMENT PLAN AND OTHER MATERIAL CONSIDERATIONS

Section 38(6) of the Planning & Compulsory Purchase Act 2004 requires applications for planning permission to be determined in accordance with the development plan unless material considerations indicate otherwise. Section 70(2) of the Town & Country Planning Act 1990 provides that the local planning authority shall have regard to the provision of the development plan, as far as material to the application, and to any other material considerations.

Other material planning considerations include the National Planning Policy Framework and guidance within the National Planning Policy Guidance.

NATIONAL PLANNING POLICY FRAMEWORK

The National Planning Policy Framework (NPPF) sets out the Government's approach for the planning system and how these are expected to be applied.

Paragraph 8 explains that there are three dimensions to sustainable development: economic, social and environmental. These dimensions give rise to the need for the planning system to perform an economic, social and environmental role.

Paragraph 11 explains that at the heart of the National Planning Policy Framework is a presumption in favour of sustainable development. For decision-taking this means approving development proposals that accord with an up to date development plan without delay; and where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, permission shall be granted unless:

- i. The application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or
- ii. Any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.

The following paragraphs of the framework are applicable to this development:

Section 2 – Achieving Sustainable Development

Section 4 – Decision Making

Section 6 – Building a Strong, Competitive Economy

Section 8 – Promoting Healthy, Safe Communities

Section 9 – Promoting Sustainable Transport

Section 11 – Making Effective Use of Land

Section 12 – Achieving Well Designed Places

Section 14 – Meeting the Challenge of Climate Change, Flooding and Coastal Change

Section 15 – Conserving and Enhancing the Natural Environment

Section 16 – Conserving and Enhancing the Historic Environment

BASSETLAW DISTRICT COUNCIL – LOCAL DEVELOPMENT FRAMEWORK

Core Strategy & Development Management Policies Development Plan Document (Adopted December 2011):

- CS1 - Settlement hierarchy
- CS9 – All Other Settlements
- DM1 – Economic Development in the Countryside
- DM3 – General Development in the Countryside
- DM4 - Design & character
- DM7 – Securing Economic Development
- DM8 – The Historic Environment
- DM9 – Green Infrastructure, Biodiversity, Geodiversity, Landscape, Open Space and Sports Facilities
- DM10 – Renewable and Low Carbon Energy
- DM11 - Developer contributions and infrastructure provision
- DM12 - Flood risk, sewage and drainage
- DM13 - Sustainable transport

NEIGHBOURHOOD PLAN (INCLUDING STATUS AND RELEVANT POLICIES)

There is no Neighbourhood Plan for this area.

RELEVANT PLANNING HISTORY

There is an extensive history associated with the power station. However the most relevant applications relating to this application are as follows:

19/00818/FUL - Erect Storage Building (Class B8) with Associated Weigh Bridge. Granted 5th December 2019.

22/00707/FUL – The Construction and Operation of a Solar Photovoltaic (PV) Farm with other Associated Infrastructure Including Sub Stations, Security Cameras, Fencing, Storage Containers, Access Tracks and Landscaping. Granted 5th January 2023

22/01689/FUL - A Gatehouse, Weighbridges, Widened Access Road and Vehicle Parking Area. Granted 16th March 2023

22/01071/FUL - The Erection of Unit A - A Finished Product Despatch Warehouse Building (B8 Use) and Packaging Plant (B2 Use) Including Odour Abatement Plant and Solar PV and Unit B - Raw Animal By-Product (ABP) Intermediate Storage Building (B8 Use) Incorporating Mechanical Processing Plant for Crushing, Freezing and Reloading (B2 Use) Including Odour Abatement Plant and Solar PV on Land Comprising Part of the Former High Marnham Power Station at High Marnham. Granted 26th May 2023

23/00243/SCR - Screening Opinion - An 8 MW Green Hydrogen Production Plant, Storage and Distribution Facility and Green Ammonia Cracker Demonstration Unit on Land Comprising Part of the Former High Marnham Power Station – EIA required primarily due to the ammonia cracker element.

23/00313/FUL - The Erection of a 1.8m High Palisade Fence with Vehicular Gate and 2 no. Bollards (Retain). Granted 1st June 2023

23/00748/HAZ - Application for Hazardous Substances Consent for the Proposed Storage of a Maximum of 3 Tonnes of Hydrogen. Pending at the time of writing the report.

23/00801/FUL - Proposed Construction and Operation of An 8 MW Electrolytic Green Hydrogen Production Plant, with Associated Infrastructure Including HGV and Multi Cylinder Pack (MCP) Loading Areas, Vehicle Maintenance Unit, Staff Welfare Facilities and Control Room, 11KV Customer Sub-Station, Boundary Fencing, Internal Access Roads, Landscaping, External Lighting and Works – Granted 26th October 2023

23/01370/COND - Discharge of Conditions 4, 5, 14 and 15 on P/A 23/00801/FUL - Proposed Construction and Operation of An 8 MW Electrolytic Green Hydrogen Production Plant – Granted 11th January 2024

SUMMARY OF CONSULTATION RESPONSES

Environment Agency

The applicant should consider the use of penstocks to enable the surface water drainage system within the facility to be isolated should a chemical/oil spillage or leak occur.(This may have been included as part of the design for either the detention basin or the Class 1 full retention separator).

The emergency response document should include consideration of how any firewater or foam produced during an incident would be collected and disposed of. The construction management plan will need to include how any discharges to surface watercourses will be inspected and treated to remove silt. A regulatory position statement RPS 261 is available for the temporary dewatering of excavations to surface waters.

If any proposed discharge falls outside of the RPS requirements an application for a Environmental Permit will be required.

An application for an environmental permit maybe required for the discharge of trade effluent to the River Trent. It is recommended that you contact our pre application service for advice.

The proposed discharge of treated sewage effluent to surface waters may fall outside of the Environmental Permitting requirements. The General Binding Rules control small discharges of treated sewage effluent to surface waters.

We consider that planning permission could be granted to the proposed development as submitted if the following planning condition is included as set out below. Without this condition, the proposed development on this site poses an unacceptable risk to the environment and we would object to the application.

Condition

If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the local planning authority) shall be carried out until a remediation strategy detailing how this contamination will be dealt with has been submitted to, and approved in writing by, the local planning authority. The remediation strategy shall be implemented as approved.

Reason To ensure that the development does not contribute to, and is not put at unacceptable risk from or adversely affected by, unacceptable levels of water pollution from previously unidentified contamination sources at the development site. This is in line with paragraph 174 of the National Planning Policy Framework.

Please note, the above comments relate solely to the protection of Controlled Waters. Should they wish to discuss any other issue, they should contact the relevant department within the Environment Agency, Local Authority or LLFA, as appropriate. Also, the Environment Agency has not had any influence or control over the selection of site investigation locations or any aspect of the sampling and analysis undertaken. Therefore, the Environment Agency must assume that the information submitted is both genuine and representative of site conditions and treat it in good faith. Furthermore, it should be noted that in accordance with Government Policy detailed in the latest 2021 National Planning Policy Framework (paragraph 184), 'where

a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner'. Also, as per NPPF paragraphs 174 and 183 respectively, '...development should, wherever possible, help to improve local environmental conditions such as air and water quality...' and '... after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990...'. Therefore, should any significant contamination not assessed by virtue of this project subsequently become apparent responsibility remains with the developer and/or landowner.

Nottinghamshire County Council

Minerals

In relation to the Minerals Local Plan, there are no Minerals Safeguarding and Consultation Areas covering, or in close proximity to, the site. There are no current or permitted minerals sites close to the application site. The County Council does not, therefore, wish to raise any objections to the proposal from a minerals perspective.

Waste

In terms of the Waste Core Strategy, there are no existing waste sites within the vicinity of the site whereby the proposed development could cause an issue in terms of safeguarding existing waste management facilities (as per Policy WCS10).

As set out in Policy WCS2 'Waste awareness, prevention and re-use' of the Waste Core Strategy, the development should be 'designed, constructed and implemented to minimise the creation of waste, maximise the use of recycled materials and assist the collection, separation, sorting, recycling and recovery of waste arising from the development.' In accordance with this, as the proposal is likely to generate significant volumes of waste through the development or operational phases, it would be useful for the application to be supported by a waste audit. Specific guidance on what should be covered within a waste audit is provided within paragraph 049 of the Planning Practice Guidance.

Transport and Travel Services

The planning application covers an area of land to the east of an unnamed road in the village of High Marnham and is for a prototype facility for the production of hydrogen and associated development. Site access appears to be via an existing access on to an unnamed road.

Nottinghamshire County Council's Highway Design Guidance 1 (Part 3.1) states that bus stops in rural areas should be within a maximum walking distance of 800 metres. There is no bus service and no bus stop within a reasonable walking distance from the site. The planning application Transport Assessment refers to the Bassetlaw Local Plan Policy DM13, to "... provide appropriate facilities to support access to high-quality public transport"

The Planning Statement and Transport Assessment state that there will be two members of staff on site at any one time, with shift patterns running over 24 hours a day, seven days a week (8 operators in total on a 4 on 4 off shift pattern). For public transport access the only consideration is in terms of the numbers of employees at construction. If there's a requirement

for a Travel Plan then a Sustainable Transport Statement should be included setting out the sustainable transport options for staff for the construction period

Nottinghamshire County Council Highways Development Control

The Highway Authority had previously considered this proposal as part of application reference 23/00801/FUL which was principally for a green hydrogen plant. It is understood that this proposal, for a prototype facility to produce hydrogen from “cracked” ammonia for use in proton-exchange membrane fuel cells (PEMFC) has been removed from the earlier application as an Environmental Impact Assessment (EIA) is required in support of the ammonia ‘cracker’. An updated Transport Assessment (TA) covering both proposals reference NT/SCP/AT/230020/TA/01, August 2023 now appears in the EIA. Save for an updated introduction, the TA is the same as that submitted in support of the earlier application.

In consideration of both proposals during construction, the TA predicts that the development would generate 63 HGV deliveries (126 two-way) and that those deliveries will be routed to and from the site via the A57 and Main Street passing through Ragnall. There is no assessment of the number of required construction operatives. Nor is there a programme to determine the number of hourly/daily movements. However, as the development includes modular buildings and shipping containers, the amount of construction and the number of construction workers required on site would likely be less than could be expected if the whole facility was to be built from scratch on-site.

During operation the TA anticipates that there will be 4 members of staff on site at any one time, but presumably that would double for a short period during shift change overs. The facility would require 1 HGV ammonia delivery per week, presumably to feed the ammonia cracker, and that the hydrogen plant would generate 10 tanker loads of hydrogen per day (20 two-way). The TA suggests that there will also be 1 HGV per day removing wastewater. The Planning Statement suggests that wastewater would be discharged into the River Trent. There is no assessment on the number of HGVs required to transport hydrogen from the ammonia cracker. However, it is assumed that the number would be nominal.

The development would be accessed via the former power station access on Fledborough Road both during construction and when in operation. The actual facility would be located some distance to the east towards the River Trent. It is therefore unlikely that the internal layout or level of on-site parking provision would affect the public highway.

Nottinghamshire County Council Lead Local Flood Authority

Based on the submitted information we have no objection and no further comments to make on the proposals.

West Lindsey District Council

No observations to make

Bassetlaw District Council Conservation

Conservation would reiterate this stance with regards to the current development, given that the current proposal is of a similar industrial character to that of the former power station. The current scheme is also substantially smaller in scale in comparison to the former power station. Furthermore, the scale and character of the current scheme is materially similar to that of the already extant applications/schemes which have sought to redevelopment the former High Marnham Power Station site. These include applications which have either subsequently been granted, or relate to applications to which Conservation have provided no objections.

Bassetlaw District Council Environmental Health

Extraction/ventilation – to comply with current building regulations

Noise – It is unlikely that the development will cause an issue in terms of noise. Conditions recommended for the construction process

Lighting – the submitted details illustrate low level lighting, care should be taken to avoid sky glow. Any light nuisance can be dealt with under the Environmental Protection Act

Contaminated land – recommends planning condition

Nottinghamshire Wildlife Trust

No objections subject to conditions and mitigation being achieved.

Lincolnshire County Council Archaeology

No further archaeological input is required for this application

Trent Valley Internal Drainage Board

No development should be commenced until the Local Planning Authority, in consultation with the Lead Local Flood Authority has approved a scheme for the provision, implementation and future maintenance of a surface water drainage system

Dunham-on-Trent with Ragnall, Darlton and Fledborough Parish Council

Impact on the communities, local assets (Listed Buildings, Non-designated Heritage Assets & HER's) and its heritage

The entrance to this site sits within 100 meters of the village of Fledborough and a little further away is Ragnall, both are small, rural and farming villages. Both these historic villages have a number of listed properties and churches, along with many more properties and buildings listed on the Nottinghamshire Historic Environment Record (HER's) including Fledborough Viaduct built in 1897.

This sits directly north of the development site, is listed as a nondesignated heritage asset due to its aesthetic appeal, integrity, rarity and significance and now home to the Sustran cycle track. National Planning and Policy Framework, section 16 states these should be considered as significant assets when decisions are being made within the planning process. We are aware that the development of this brown field site at High Marnham is in the councils Emerging Local Plan so may be seen as a priority. Consideration needs to be given to that for over 11 years, this site has straggled the Mid Nottinghamshire and Trent Washlands and has high landscape sensitivity due to the flat nature of the landscape.

It remains relatively unchanged with little noise and no light pollution and is an enjoyable place to live and work – we'd like to keep it that way. Planning Policy does not allow for considerations of current cumulative developments on this site and the impact they all have locally. When deciding on the outcome of this application it should be reasonable to assume that it is assessed on how it is today and not from 20 years ago, when High Marnham Power Station ceased to operate.

TRANSPORT

Based on developers Design and Access Statement, all the traffic will access the site to and from the A57 via Ragnall and Fledborough and is a huge concern. There is no public transport nor any pedestrian access at the site. No consideration in the Design and Access Statement refers to the villages of Fledborough, which is less than 500 meters from the site entrance and Ragnall, which is a little further away and both will bear all the transport to and from this site. The noise and pollution generated by these lorries, as well as the additional traffic that is expected to be generated by the further development of this site from the same developer will have a detrimental impact on these villages and the people who live there. The developer's application states this is a "greener energy source", this additional traffic on our roads, navigating sharp bends and blind corners through our rural villages, is not "greener" for them, it's creating a nuisance because of the noise, pollution and general road safety. There have been 3 traffic accidents on this stretch of road in the last month alone ! . Regarding alternative transport and to truly promote "a greener energy source" we would have expected JG Pears to have investigated the possibility of using the river Trent and rail networks as there is a trainline that lies to the west of the site. There are also alternative routes they could use, there is a height restriction at Tuxford, if any vehicles are below this, then this should be considered rather than just opting for the more direct one through our villages.

VISUAL IMPACT/LIGHTING

Even though there is a landscape plan included within the planning application which may help hide the structures, another concern is the impact industrial lighting will have on the surrounding area during dark hours. Currently, there is no light pollution south of Fledborough and Ragnall.

Reduced lighting, further landscaping and tree planting, as well as green fencing should be conditions of approval. This is based on the national planning policy framework sections 130 and 185 and section 4 of policy 20 in the draft Bassetlaw development plan.

External low-level lighting and wildlife friendly lighting, only being used when absolutely necessary and not on permanently would certainly help and not change the landscape and ecology of the site too much

NOISE

The noise generated from this application needs to be measured cumulatively with anticipated noise that will be generated from all other areas of this development and not independently, we would request that restricted 3 operating and construction hours, such as Monday to Friday 0800-1800 and no weekends or bank are a condition of approval.

MAJOR ACCIDENTS AND HAZARDS

With regards to the Major Accidents & Hazards Assessment the Parish Council has the following concerns:

- Nottinghamshire Fire and Rescue need to be consulted to assess how they would respond to an incident at the site and for them to raise any concerns they may have regarding roads passing through built up areas particularly local villages who have already expressed their concerns to the parish council.
- The site is not at risk of flooding, but there needs to be adequate assessment of the risks of extreme rainfall at the site and how they expect to deal with this – Storm Babet has recently demonstrated the impact excessive rainfall can have.
- The development should follow the suggestion from the report of storing the Ammonia in 2 tanks and reduce the incoming Ammonia tankers to a volume of 9 tonnes.
- The risk of loss of containment of Potassium Hydroxide from the electrolyser due to a fault or accident, including on the highway, has not been assessed – There is a need to address the potential impact of fugitive emissions of Ammonia during maintenance to avoid nuisance odours.
- Are there provisions for Ammonia detectors to be placed at locations further from the plant, such as the site boundary or nearby villages?
- The Parish Council wants further clarification on the intention to only run the Ammonia cracker for 3 years.

Taking into account the severe negative impact this development will have on the people living and working around it, the families and businesses that will be affected by noise, smell, traffic, possible safety concerns and the visual impact on both sides of the River Trent, can we suggest a decision is not made until the government review of the site is finalised and the JG Pears Group have submitted a “Master Plan” of the whole site.

This planning application is a further application for the JG Pears operation in the locality and has aims for additional development proposals such as battery storage. It is considered that this will be a further nuisance site which will affect a large number of people and this is why we cannot support this application.”

SUMMARY OF PUBLICITY

This application was advertised by neighbour letter, site notice and press notice and 3 letters of objection have been received raising the following points:

- Heavy traffic on the Sutton on to Ragnall Road.

- There will be added traffic causing noise at all hours the power station that was on site prior had limitations to travel etc
- Cyclists are put off by the extremely heavy and dangerous traffic along the route.
- Surrounding roads are already in poor condition
- This is another application for the site that will add to the industrial feel of a rural location
- Concerns regarding noise pollution
- How safe will it be?
- Boundary fencing is not in keeping and does not have a low visual impact and should be green and not silver
- can systems be in place to ensure there are suitable back up system to prevent dangers to the surrounding area.
- The site is visible from the former railway which is now part national cycle network. A berm and tree planting should therefore be planned to the north of the site
- Lighting should be reduced, further landscaping and tree planting should be proposed

CONSIDERATION OF PLANNING ISSUES

The main issues in this application are as follows:

- Environmental Impact Assessment
- The Principle of Development
- Sustainability of development
- Highway considerations
- Landscape and visual amenity including layout and design
- Residential Amenity
- Biodiversity
- Heritage
- Flood Risk and Drainage
- Contamination
- Other issues
- Conclusion

ENVIRONMENTAL IMPACT ASSESSMENT

The application is accompanied by an Environmental Statement as the Local Planning Authority considers that the development is within the meaning of Schedule 1 of the Regulations, being a development likely to have significant effects on the environment by virtue of factors such as its nature, size or location under the category of:

Schedule 1, 6(b) *'Integrated chemical installations, that is to say, installations for the manufacture on an industrial scale of substances using chemical conversion processes, in which several units are juxtaposed and are functionally linked to one another and which are - (b) for the production of basic inorganic chemicals'*

PRINCIPLE OF THE DEVELOPMENT

The starting point for assessing development is the adopted development plan which currently comprises of the Bassetlaw Core Strategy 2011.

The site lies outside of a development boundary and therefore is within the open countryside; however the application site per se lies within a much wider brownfield site which used to house High Marnham Power Station.

It is accepted that the CS policies of the adopted development plan are out of date and are to a degree silent in respect of this type of development. However, the most important policy for the determination of this application is Policy DM10 which considers renewable and low carbon energy. Given the fact that this policy is consistent with the aims and objectives of the National Planning Policy Framework it is given full weight. This policy is supportive of such developments providing they demonstrate the following:

- i) are compatible with policies to safeguard the built and natural environment, including heritage assets and their setting, landscape character and features of recognised importance for biodiversity;
- ii) will not lead to the loss of or damage to high-grade agricultural land (Grades 1 & 2);
- iii) are compatible with tourism and recreational facilities;
- iv) will not result in unacceptable impacts in terms of visual appearance; noise; shadowflicker; watercourse engineering and hydrological impacts; pollution; or traffic generation; and
- v) will not result in an unacceptable cumulative impact in relation to the factors above

In terms of material considerations in respect of the principle of the development the NPPF is clear that the planning system should support renewable energy development, paragraph 157 states:

“The planning system should support the transition to a low carbon future in a changing climate, taking account flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure” (report writer’s emphasis)

Paragraph 163 states:

“When determining planning applications for renewable and low carbon development, local planning authorities should:

- a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and
- b) approve the application if its impacts are (or can be made) acceptable. Once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should expect subsequent applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas.”

Further material considerations relate to the National Policy Statements which are normally used for national infrastructure development; however they provide a good reference point demonstrating the Government's stance to this type of proposal.

Policy Statement EN-1 National Policy Statement for Energy, Draft National Policy Statement EN-1 – Overarching Energy and Draft National Policy Statement EN-3 Renewable Energy Infrastructure are of particular importance in respect of this application. All of these documents demonstrate the Government's commitment to meeting the climate change commitment of net zero by 2050.

It is clear from these National policy documents that there is Government support for this type of development subject to an assessment of material considerations which are discussed below.

A further material consideration relates to the location of this site. Whilst it is accepted that it is within the open countryside it forms part of a wider brownfield site which housed High Marnham Power Station; this is an ideal location for a development of this nature.

It is therefore considered that the principle of the development is acceptable subject to the material considerations which are discussed below.

SUSTAINABILITY OF THE DEVELOPMENT

Paragraph 8 of the NPPF sets out three dimensions for sustainable development, economic, social and environmental:

“an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;

a social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and

an environmental objective – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

In reaching a decision on this case, the NPPF at paragraph 9 makes it clear that the objectives referred to above should play an active role in guiding development towards sustainable solutions and are not criteria against which every planning application should be judged against.

When taken in the context of the relevant policies and material considerations outlined in the rest of this report, it is considered that the proposal constitutes sustainable development as

required by the policies above. This is also in the context of the benefits provided by renewable energy and carbon reduction as a result of the proposed development.

Paragraph 163 of the NPPF does not currently require applicants to demonstrate a need for new renewable energy development, recognising that even small additions are invaluable to reducing carbon emissions. Renewable energy as a whole still makes up a minority of the UK's energy mix and at the present time, relevant local and national policy is strongly in support of substantial increases in the provision of renewable energy.

HIGHWAY CONSIDERATIONS

Paragraph 114 of the NPPF states that schemes can be supported where they provide safe and suitable access for all. This requirement is also contained in policy DM4 of the Council's Core Strategy.

Paragraph 115 of the NPPF makes it clear that development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.

Paragraph 96 of the NPPF states that all development should aim to achieve healthy, inclusive and safe places which encourage social interaction, are safe and accessible and enable and support healthy lifestyles. Paragraph 114 of the NPPF requires schemes to provide safe and suitable access for all users as well as looking at appropriate opportunities to promote sustainable transport modes.

Paragraph 116 e) of the NPPF requires schemes to be designed to enable charging of plug-in electric vehicles (EV) and other ultra-low emission vehicles (ULEV) in safe, accessible and convenient locations.

Policy DM13 of the Bassetlaw Core Strategy seeks to provide sustainable transport.

The site is accessed off Fledborough Road, which was the access into the former power station site. This access also serve other developments on the wider site.

As part of the Environmental Statement, the applicant has provided an updated Transport Assessment which assesses the impact of both this proposal for an ammonia cracker plant and the green hydrogen production plant that has been granted planning permission under reference 23/00801/FUL.

The proposed plant will be located on one of the former cooling towers bases, and would be positioned adjacent to the previously approved green hydrogen production plant, and has an existing access track leading to it from Fledborough Road. There is proposed parking for the both the hydrogen plant and proposed ammonia cracker which comprises of 8 spaces, including 1 disabled space.

During construction, the following deliveries are expected:

Concrete – 25 deliveries

Building Materials – 10 deliveries

Balance of Plant – 10 deliveries

Electrolysers (44 tonne) – 16 deliveries

Compressors (44 tonne) – 2 deliveries

It is expected that the construction vehicles will take the following route:

- A1 (northbound and southbound) at Markham Moor on to A57.
- A57 then turning right on to Main Street through Ragnall to site
- The reverse journey will be taken when departing the site.

During operation it is expected that there will be 4 members of maintenance staff on shift at any one time with shift patterns running 24 hours, 7 days a week. As a result of the proposed development it is expected that on average there will be approximately 2 additional vehicle movements per hour which will be added to the highway network.

The Transport Assessment has also considered other developments on the site which have attained planning permission in order to assess the cumulative impact on the highway network. Other developments considered include the solar farm, the meal store and Units A and B. The report concludes that none of the junctions assessed will be operating near to capacity even in the future year of 2029.

The Transport Assessment has been assessed in detail by Nottinghamshire County Council as the Highway Authority. Whilst the Highway Authority state that there is no analysis of the number of required operatives or a programme to determine the number of hourly/daily movements, the Highway Authority is of the view that as the development includes modular buildings and shipping containers the amount of construction and the number of construction workers on site is likely to be less than could be expected if the whole facility was to be built from scratch on site.

In terms of operation the Highway Authority has analysed the details and states that whilst there is no assessment of the number of HGVs required to transport hydrogen from the plant it is expected that the number would be nominal; Conditions are recommended.

Nottinghamshire County Council Travel and Transport questioned the need for a travel plan; however this is not considered necessary for this proposal.

Dunham and District Parish Council has objected to this application on the grounds of highway safety, noise and pollution generated by HGV movements and lack of public transport and pedestrian access.

The Highway Authority have no objection to the application even though it is accepted that there are some minor omissions within the transport assessment such as the number of construction operative movements, and the number of HGVs required to transport hydrogen from the ammonia cracker. The traffic impact on highway network capacity is likely to be minimal.

Comments have been made that the applicant should consider alternative transport links; however the local planning authority has a duty to determine applications that are submitted and in this case the statutory consultee – the Highway Authority consider the proposal to be acceptable in highway terms.

The advice from the Highway Authority is accepted and it is concluded that there will not be a severe impact on the highway network.

The Highway Authority have requested conditions be imposed requiring the submission of details of a construction programme which includes details of the peak and daily traffic movements including construction worker movements and a Construction Traffic Management Plan for the routing of vehicles exceeding 3.5 tonnes gross vehicle weight to and from the site. The applicant has provided a Construction Traffic Management Plan to discharge conditions 4 and 5 of planning permission 23/00801/FUL for the green hydrogen production plant. This Management Plan also includes the traffic management for proposed ammonia cracker. Given the Highway Authority have confirmed that this is acceptable it is considered that the proposed condition should ensure that this previously approved Construction Traffic Management Plan is complied with during the construction phase of this development.

LANDSCAPE AND VISUAL AMENITY (INCLUDING DESIGN AND LAYOUT)

Section 12 of the NPPF refers to achieving well designed places. Specifically, paragraph 131 states that good design is a key aspect of sustainable development; it creates better places in which to live and work in and helps make development acceptable to local communities. Paragraph 135 states that decisions should aim to ensure that development will function well and add to the overall quality of the area, establish a strong sense of place, create attractive and comfortable places to live, work and visit, optimise the potential of the site to accommodate development, create and sustain an appropriate mix of uses and support local facilities and transport networks. Furthermore it provides that development should respond to local character and history, and reflect the identity of local surroundings and materials, while not preventing or discouraging appropriate innovation. The NPPF goes on to state that permission should be refused for development of poor design.

Policy DM4 of the Bassetlaw Core Strategy provides general design principles which should be applied to all schemes. The policy states that all development proposals will need to be in keeping with the character and appearance of the wider area and when they are in historic locations, they should respect existing development patterns. All schemes must respect their context and not create a pastiche development which would be incorrect in their context.

The site straddles the Mid Nottinghamshire and Trent Washlands Character Areas and there is high landscape sensitivity here due to the flat nature of the landscape; however it does have to be remembered that the wider site did used to accommodate a power station which was extremely prominent in the wider landscape although the landscape does have to be assessed on how it is today for the purposes of this application.

There are remnants of the former use on the site and on the wider site and this does somewhat reduce the landscape sensitivity and there is fairly good screening around the wider site which will reduce the impact of the development. It should also be remembered that permission has already been granted for a green hydrogen production plant within the same tower base and employment buildings on part of the wider site which again will impact on the landscape character.

The applicant has submitted a Landscape and Visual Assessment in support of the application. This assessment concludes that given the previous land use the proposals would not result in any long term significant adverse harm to the landscape and would result in neutral effects and no change in the majority of views due to the established boundary treatment and the presence of industrial components in the immediate and surrounding landscape.

A cumulative analysis has also been undertaken in respect of other developments which have been granted on the wider site. It states that given the previous industrial use there will be a negligible neutral cumulative long term impact on the sites immediate setting. The short and long term cumulative impacts on the localised landscape is likely to result in negligible adverse impact and this is mainly due to the proposed solar farm which extends beyond the industrial area.

In visual terms whilst the proposed development would be barely perceived in the localised and wider setting the cumulative development will be perceived in the context of an area that is already characterised by industrial development such as the existing substation and pylons. Long term negligible adverse impacts are anticipated on the localised visual environment to the south and west given the cumulative development and in the wider setting this would reduce to negligible / non adverse.

The results of the Landscape and Visual Assessment are accepted. The development proposed is considered to result a minimal impact on the wider landscape character. It is accepted that cumulatively with the approved development the proposals will have a slightly adverse impact on the wider character area; however given the previous use on the site and the current uses and pylons it is considered that this would not be so detrimental as to warrant refusal of permission.

In terms of the design and layout of the development the site is located on the previous most south eastern cooling tower. The proposed ammonia cracking plant would be positioned within the north-eastern quarter of the cooling tower base with the western half being occupied by the previously approved green hydrogen plant.

The proposed ammonia cracking plant comprises of the following:

- Vessels
- Pumps
- Compressors
- Tanks
- Valves and control equipment houses in permanent steel support structures
- Welfare facility which will have a kitchen/seating area available for staff operating the plant. This facility comprises a pre-fabricated portacabin structure with an internal floor area of 11 m².
- 20 no. pipes/flues are located within the plant standing 5.6 metres from ground level. 2 no. flues located on the ammonia tank would stand 6.6 metres from the ground.

The design and layout of the development is considered to be typical of this type of industrial development and reflects the character of the site and the surrounding buildings that have been previously granted planning permission.

It is therefore considered that the development is acceptable in terms of design and layout.

RESIDENTIAL AMENITY

Paragraph 191 of the NPPF states that new development should be appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health and living conditions. It states that decisions should mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development, identify and protect tranquil areas and limit the impact of light pollution from artificial light on local amenity, dark landscapes and nature conservation.

Paragraph 189 of the NPPF requires that in making decisions on schemes consideration is taken account of the ground conditions and any risks arising from contamination.

Policy DM4 of the Core Strategy requires that development does not materially or detrimentally affect the amenities of the occupiers of neighbouring properties. This requirement also forms part of paragraph 135 of the NPPF.

The site is fairly remote from any residential dwellings. A noise assessment has been submitted with the application which considers the potential noise generation from the plant associated with the proposed development.

The report concludes that the proposed development will not give rise to rating sound levels that do not exceed the measured background sound level at all Noise Sensitive Receptors during the day this giving rise to low impact.

The report identifies that the proposed development might give rise to rating sound levels that are 1dB above the measured background sound level at Noise Sensitive Receptor 3 (as shown on figure 3 of the noise report) during the night and 5dB above the measured background sound level at Noise Sensitive Receptors 1 and 2 (as shown on figure 3 of the noise report) during the night. The report considers the context in which the sound occurs and identifies that there is no significant change in ambient sound level at the closest receptor and accordingly these locations will not be endangered as a result of the development. Thus the amenity of residential receptors and operational use of the nearest non-residential receptor will not be compromised.

The Council's Environmental Health Team has assessed this report and is satisfied that the proposed development is unlikely to cause an issue in terms of noise.

In terms of construction, it is accepted that noise and disturbance will be increased; however the Environmental Health Team has recommended conditions to ensure that this temporary increase in noise is controlled so as not to have a significant impact on residential amenity.

As the statutory consultee in this regard this advice is accepted and it is not considered that the proposal will have a detrimental effect on residential amenity in terms of noise.

In terms of lighting this indicates that the majority of lighting will be low level flood lighting. The Environmental Health Team advise that care should be given to installing the lighting as to

reduce sky glow; however states that any light nuisance can be dealt with under the provisions of the Environmental Protection Act 1990.

It is acknowledged that the Parish Council has objected to this planning application on the grounds of the impact on residential amenity from the proposed traffic generated in terms of noise and pollution. However it must be remembered that the site is a former power station and would have generated traffic. Traffic will be increased more during construction and conditions can be imposed to lower the impact on residential amenity. It is accepted that traffic from this site will be increased during operation; however it is not considered that noise and disturbance from the traffic would be a sustainable reason for refusal in this circumstance. It must also be remembered that planning decisions have to be taken in the public interest and not in terms of private interests.

Further concerns have been raised in terms of health and safety of the development. If permitted this development would require further permits to be obtained along with an assessment by the competent authority under the Control of Major Accident Hazards Regulations 2015. This application will require full consideration of the health and safety implications of the development.

The only significant environmental effects of the development are the risk arising from the Major Accidents and Disasters and this is addressed within the submitted Environmental Statement within an Assessment of Major Accidents and Disasters. Industry recognised methodologies have been used to identify the hazards associated with the plant. This means minimising the risk by design where appropriate and implementing control measures to reduce risks to tolerable levels.

The submitted assessment identifies the potential Major Accidents and Disasters which could be applicable to the proposed development, associated with the substances present and operations to be undertaken. Principally, these could include fires, explosions and the release of hydrogen and ammonia. These incidents have an extremely low probability of occurrence but could have significant impacts on people and the environment without mitigation.

The Environmental Statement sets out that the hazards are well understood by plant operators and controlled by Regulatory Authorities and the Applicant and the engineering design of the Proposed Development will incorporate appropriate standards, proven design methods and control measures necessary to reduce the risks of such accidents to an acceptable level, i.e. ALARP (as low as reasonably practicable, which is the standard expected by the Regulatory Authorities (HSE and Environment Agency).

A Hazardous Substance Consent Application will need to be submitted and this will need to be consented by both the Local Planning Authority and the Health and Safety Executive. This will control how the site is controlled, operated and monitored.

Furthermore, the applicant acknowledges that the proposal will require an Environmental Permit from the Environment Agency.

With the implementation of the measures required by the Hazardous Substances Consent Application and Environmental Permit along with those detailed with the Environmental Statement, the Major Accident & Disasters risks are considered to have been appropriately

mitigated. Detailed emergency plans will be required to be produced for the installation in accordance with the Environmental Permit and all applicable Regulations. A condition is recommended for the applicant to submit an emergency plan for approval.

The health and safety of this proposal will be controlled primarily via other mechanisms and controlling bodies. It is therefore considered that it would not be reasonable to withhold planning permission on these grounds.

On this basis even though concerns have been raised in respect of major accidents and hazards it is considered that there are adequate controls in place, albeit some of these will be largely controlled via separate legislation. It must be borne in mind that planning should not attempt to control issues that can be controlled via separate legislations:

“The focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities.” (paragraph 194 of the NPPF)

Based on the above analysis, given the location of this site it is not considered that the proposal would give rise to a significant impact upon residential amenity that would warrant refusal of permission.

BIODIVERSITY

The content of paragraph 185 the NPPF states that in dealing with planning applications, councils must consider the harm of a scheme on biodiversity. It states that significant harm should be avoided, adequate mitigation should be provided or if this is not possible, the loss should be compensated for. If none of the above is possible, then permission should be refused.

The site is not subject to any statutory or non-statutory ecological designations. Spalford Warren SSSI lies approximately 3.1km to the south east of the site and Marnham Railway Yard Local Wildlife Site is located approximately 0.1km to the north of the site.

The applicant has submitted an ecological appraisal with the application which concludes that the proposals have sought to minimise impacts on biodiversity and subject to the implementation of appropriate avoidance, mitigation and compensation measures it is unlikely that the proposals will result in significant ecological harm.

The following mitigation measures are proposed:

- Tree protection measures
- Pollution prevention to watercourses
- Sensitive lighting
- Mammal construction safeguards
- Badger update survey

- Restriction on timings of works to avoid bird breeding season, if this cannot be avoided measures should be put into place.

Nottinghamshire Wildlife Trust has been consulted on this application and has not raised any objections subject to conditions.

A Biodiversity Net Gain Assessment has been submitted with the application and it confirms that the proposals with the proposed enhancements will result in a net gain of 11.07% for habitats. A landscape strategy plan has been submitted as part of this assessment with the enhancements consisting of the following:

- 900 m² of mixed scrub
- 18 medium sized trees

It is considered that the impact on biodiversity is acceptable and the provision of 11% net gain is consistent with planning policy. Conditions are recommended for a Landscape Ecological Management Plan and a Biodiversity Management Plan.

Nottinghamshire Wildlife Trust have raised no objections to the proposal but have requested the imposition of conditions requiring a further survey for great crested newts and a destructive search for herptiles.

A Great Crested Newt survey has been undertaken and this returned a negative result, indicating that Great Crested Newt are highly likely to be absent from the waterbody in close proximity to the site. As such, it is concluded that no licensing or specific mitigation measures in respect of Great Crested Newt is required.

Further a destructive search has been undertaken by a qualified ecologist. This search involved the cutting of suitable vegetation to a short height (~15cm) so as to encourage reptiles and amphibians to disperse to nearby retained habitat, whilst also allowing for a fingertip search of the area by the supervising ecologist. Where present, potential refuge features, e.g. piles of rubble, heavy logs or brash piles were fingertip searched prior to being carefully disassembled and removed from site. No reptiles or amphibians were found during the destructive search exercise.

Both these reports were confirmed to be acceptable by Nottinghamshire Wildlife Trust as part of the application to discharge conditions 14 and 15 of planning permission 23/00801/FUL for the green hydrogen production plant

On this basis, it is considered that there is no requirement for further ecological surveys to be undertaken.

HERITAGE IMPACTS

The Council has a duty under section 66(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 to have special regard to the desirability of preserving their setting, character and appearance. The House of Lords in the South Lakeland DC vs the SOS case in 1992 decided that a Conservation Area would be preserved, even if it was altered by development, if the character or appearance (its significance in other words) was not

harmed. Conservation' is defined in the NPPF as the process of maintaining and managing change to a heritage asset in a way that sustains and where appropriate enhances its significance. Therefore case law has ascertained that both 'conservation' and 'preservation' are concerned with the management of change in a way that sustains the interest or values in a place – its special interest or significance. However, 'conservation' has the added dimension of taking opportunities to enhance significance where opportunities arise and where appropriate.

Para 200 of the NPPF requires Councils to identify the significance of any heritage asset that may be affected by a proposal to ensure that harm to the asset is avoided or is minimised. Policy DM8 of the Council's Core Strategy requires schemes that affect heritage assets to be of a scale, design, materials and siting and not have a negative effect on views towards the heritage asset. Paragraph 205 of the NPPF states that in considering the impact of development on the significance of heritage assets, great weight should be given to the assets conservation. Policy DM8 of the Council's Core Strategy requires schemes that affect heritage assets to be of a scale, design, materials and siting and not have a negative effect on views towards the heritage asset.

Para 209 of the NPPF advises that Councils should consider the impact of a proposal on the significance of a non-designated heritage asset when making a decision. Paragraph 211 of the NPPF is also particularly applicable where archaeology has been identified as a potential issue on site. This paragraph requires that applicants record to provide documentary evidence to advance the understanding of the significance of the heritage asset. Policy DM8 of the Bassetlaw Core Strategy states that there will be a presumption against development that detrimentally affects the significance of a heritage asset.

The applicant has submitted a heritage impact assessment with the application which undertakes an assessment based on a 1.5km study area. Within this area there are 5 Listed Buildings, one of which is Grade I (Church of St Wilfrid). Outside of the 1.5km area there are a number of Listed Buildings, two Conservation Areas (South Clifton and Normanton) and a structure of industrial archaeological interest (Fledborough Viaduct).

The assessment concludes that when viewed individually the visual effects of the proposed development on setting of heritage asset will be nil and also when viewed collectively will also be nil. On this basis paragraph 208 of the NPPF (less than substantial harm) is not engaged. The report concludes that paragraph 209 of the NPPF (non-designated heritage assets) may be engaged but there are no unacceptable changes or impacts on setting or significance. Furthermore the assessment concludes that there are no effects on Listed Buildings that would give rise to the Council's duty under section 66 (1) of the Act.

The application site is within the setting of a range of designated heritage assets including Listed Buildings and non-designated heritage assets.

The key consideration is the scheme's impact upon the setting of the designated heritage assets that are located within the surrounding settlements. The scheme's impact upon the setting of nearby non-designated heritage assets, is also due consideration.

The Council's Conservation Team has no concerns with the principle of development. The remediation, reclamation and redevelopment of the former High Marnham industrial site is seen

as a priority, as such a scheme would see this large plot of redundant brownfield land positively regenerated to the benefit of the local economy, communities and environment.

The Conservation Team have stated that they previously made comments in relation to the redevelopment of the High Marnham site, stating that: "Notwithstanding [the impact that any forthcoming scheme may have upon] the historic setting [of the surrounding built heritage], this is a former power station which was demolished several years ago and has remained brownfield land since that time. Previously there were several large buildings on the site together with 5 cooling towers, so the precedent for large scale development has already been established. Development here could also help to enhance the setting of those nearby heritage asset".

Conservation would reiterate this stance with regards to the current development, given that the current proposal is of a similar industrial character to that of the former power station. The current scheme is also substantially smaller in scale in comparison to the former power station. Furthermore, the scale and character of the current scheme is similar to that of the already extant applications/schemes which have sought to redevelopment the former High Marnham Power Station site. These include applications which have either subsequently been granted, or applications to which Conservation have provided no objections.

On the basis of the above, it is considered that the proposal would at least preserve the setting of the surrounding built heritage.

In terms of archaeology, the site lies in an area of archaeological potential associated with pre-historic, Roman, medieval and post-medieval activity. The application is accompanied by a desk-based assessment (DBA) which summarises the known archaeology currently recorded on the HER and recent mapping.

Extensive pre-historic and Roman settlement lies along the Trent valley the closest of which lies just to the south and south-east of the site. These are noted as undated in the DBA due to a lack of evaluation, however the cropmarks are consistent with known dated settlement activity along the river valley and elsewhere in the region. A single undated cropmark enclosure is also noted just to the west of the proposed site and has not been discussed in the DBA.

The site lies within the former High Marnham Power Station adjacent to the cooling towers and to the east of the main power station buildings. There has been significant disturbance/truncation in the vicinity of the cooling towers and buildings due to construction and decommissioning activity.

Lincolnshire County Council Archaeology have confirmed that as the application is primarily focused on one of the former cooling towers, where the ground impacts will have been

significant and the survival of archaeological remains is highly unlikely, no further archaeological input is required for this proposal

It is therefore considered that the impact of the development upon the historic environment is acceptable.

FLOOD RISK AND DRAINAGE

The NPPF at paragraph 165 and policy DM12 of the Core Strategy makes it clear that development in areas at risk of flooding should be avoided by directing development away from the areas at the highest risk.

Paragraph 173 of the NPPF requires that proposals do not increase flood risk elsewhere and should be developed in line with a site specific flood risk assessment which incorporates a Sustainable Urban Drainage solution.

The site lies within Flood Zone 1, land at the lowest risk of flooding. The applicant has provided a Flood Risk Assessment and Drainage Strategy which provides an assessment of the risk of flooding from different sources to the development and also includes the proposed drainage strategy to ensure no increase in flood risk to the wider catchment.

The proposed surface water system will be a gravity system taking run off from the new roofs and paved areas. The new paved areas will use a combination of linear drainage and gullies to collect surface water runoff. Surface water from impermeable areas will drain by gravity to the proposed basin located to the north west of the site. The outlet from the proposed flow control chamber will connect to an existing surface water drainage system which is located in the access road. The existing surface water drainage system has an outfall to a drainage ditch at the north east corner of the ownership boundary which in turn discharges into the River Trent.

Foul drainage will adopt a similar strategy as to other developments in the same ownership boundary and proposes to use an on plot foul water treatment plant.

The submitted reports indicate that there will be no discharge to ground from either surface water drainage or foul drainage.

No effluent is produced during normal operations of the proposed Ammonia Cracker. Waste is only produced during maintenance process and will be collected using Intermediate Bulk Containers (IBCs). The IBCs will be emptied at predetermined schedule.

Nottinghamshire County Council as the Local Lead Flood Authority have been consulted on the application in respect of surface water and raise no objections. Their advice is accepted and concurred with; conditions are proposed to ensure the development is undertaken in accordance with the submitted Flood Risk Assessment and Drainage Strategy.

The Environment Agency have commented that the applicant should consider the use of penstocks to enable the surface water drainage system within the facility to be isolated should a chemical/oil spillage or leak occur. It is considered that this should be included within the Emergency Plan that is required by a proposed condition. The Emergency Plan document

should also include consideration of how any firewater or foam produced during an incident would be collected and disposed of.

CONTAMINATION

Paragraph 189 of the NPPF requires that in making decisions on schemes consideration is taken account of the ground conditions and any risks arising from contamination.

The Council's Environmental Health Team have considered this application and states that the site may have been previously used for potentially contaminative uses, and there is a presence of a sensitive receptor. Accordingly conditions requiring the preparation of Phase I and II land contamination assessments and site investigation. However, these reports have been submitted with the application and the Environment Agency have confirmed that a condition should be imposed that states a further remediation strategy be submitted should contamination not previously identified is found to be present at the site.

OTHER

Comment has been made that the overall site is being developed in a piecemeal way without a masterplan. Given the current planning policy it is not possible to request a masterplan for this site. Instead each planning application has to be assessed on its own merits. Cumulative impact has been assessed in both documentation and reports submitted with the application and throughout the analysis within this report and full consideration has been given to what is proposed and what already has permission at the site.

CONCLUSION

In conclusion this proposal is for the Construction and Operation of a Prototype Facility for the Production of Hydrogen from Ammonia, and Associated HGV Loading and Unloading Areas, Staff Welfare Building, Boundary Fencing, Internal Access Roads, External Lighting and Works. The principal policy for determining this application is Policy DM10 of the Bassetlaw Core Strategy.

All of the material considerations relating to the application have been fully analysed in the report, including National Policy which seeks to support this type of development.

It is considered that the proposal is consistent with planning policy and that there are no adverse impacts of the development that would outweigh the benefits. The recommendation is therefore to grant planning permission subject to conditions.

RECOMMENDATION:

Grant subject to conditions

CONDITIONS/REASONS:

1. The development must be begun not later than the expiration of three years beginning with the date of this permission.

Reason: To comply with Section 51 of the Planning and Compulsory Purchase Act

2004.

2. The development hereby permitted shall be in accordance with the following approved plans:

- Site Location Plan. Drawing number 6080 received on 14th September 2023
- Proposed Site Plan. Drawing number 6081 received on 14th September 2023
- Proposed Vehicle Tracking Plan. Drawing number 6082 received on 14th September 2023
- Proposed Fence and Bollard Details. Drawing number 6083 received on 14th September 2023
- Typical Shipping Container Plan & Elevations. Drawing number 6084 received on 14th September 2023
- Proposed Indicative Lighting Plan. Drawing number 6085 received on 14th September 2023
- Proposed Legato Blocks Elevation. Drawing number 6066 received on 14th September 2023
- Proposed Plant Site Sections. Drawing number 6087 received on 14th September 2023
- Plot Plan Equipment Arrangement. Drawing number DE-SME-21148-MEC-002 received on 14th September 2023
- Proposed Drainage Schematic. Drawing Number 2310 received on 14th September 2023
- Proposed Catchment Areas Layout. Drawing number 2315 received on 14th September 2023
- Environmental Statement, Volume I – Main Text, Reference PF/10889, received on 14th September 2023
- Environmental Statement, Volume II – Appendices, Reference PF/10889, received on 14th September 2023
- Environmental Statement, Volume III – Non-Technical Summary, Reference PF/10889, received on 14th September 2023
- Major Accidents & Hazards Assessment by Environmental Resources Management Ltd. received on 14th September 2023
- Flood Risk Assessment and Drainage Strategy, reference HIMA2-BED-00-XX-RP-C-2721 Revision 01, by BE Sustainable Placemaking received on 14th September 2023
- Ecological Appraisal by Aspect Ecology Reference 6687 EcoAp vf /JD/BB/DS received on 14th September 2023
- Biodiversity Net Gain Assessment by Aspect Ecology Reference 6687 BNGA vf1 JD/BB/DS received on 14th September 2023
- Noise Impact Assessment by Inacoustic received on 14th September 2023
- Phase II Geo-environmental Assessment by RSK Geosciences, Reference 302535 R02(00), received on 14th September 2023
- Construction Traffic Management Plan by SCP Transportation Planning : Infrastructure Design, received on 27th October 2023
- Delivery Traffic Management Plan by SCP Transportation Planning : Infrastructure Design, received on 27th October 2023

Reason: For the avoidance of doubt

2. The construction phase of the approved Prototype Facility for the Production of Hydrogen from Ammonia shall be strictly managed in accordance with the Construction Traffic Management Plan by SCP Transportation Planning : Infrastructure Design, received 27th October 2023.

Reason: To minimise the possibility of heavy construction traffic using inappropriate routes to and from the site in the interests of maintaining highway efficiency and safety.

3. The approved Prototype Facility for the Production of Hydrogen from Ammonia shall be strictly operated in accordance with the Delivery Traffic Management Plan by SCP Transportation Planning : Infrastructure Design, received 27th October 2023

Reason: To minimise the possibility of heavy traffic using inappropriate routes to and from the site in the interests of maintaining highway efficiency and safety

4. All construction vehicles transporting materials to and from the site shall be fully covered with sheeting or otherwise sealed prior to them leaving the application site and entering the public highway for the lifetime of the development.

Reason: To minimise the potential for debris to be deposited on the highway

5. If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the local planning authority) shall be carried out until a remediation strategy detailing how this contamination will be dealt with has been submitted to, and approved in writing by, the local planning authority. The remediation strategy shall be implemented as approved.

Reason To ensure that the development does not contribute to, and is not put at unacceptable risk from or adversely affected by, unacceptable levels of water pollution from previously unidentified contamination sources at the development site. This is in line with paragraph 189 of the National Planning Policy Framework.

6. Except in case of emergency, construction operations should not take place on site other than between the hours of 08:00 - 18:00 Monday to Friday and between 09:00 - 13:00 on Saturdays. There should be no working on Sundays or Public Holidays. At times when operations are not permitted work shall be limited to maintenance and servicing of plant or other work of an essential or emergency nature. The Local Planning Authority should be notified at the earliest opportunity of the occurrence of any such emergency and a schedule of essential work shall be provided.

Reason: In the interest of residential amenity

7. During construction heavy goods vehicles should only enter or leave the site between the hours of 08:00 - 18:00 on weekdays and 09:00 - 13:00 Saturdays and no such movements should take place on or off the site on Sundays or Public Holidays (this excludes the movement of private vehicles for personal transport).

Reason: In the interest of residential amenity

8. Notwithstanding the submitted details, an operational lighting plan shall be submitted to and approved in writing by the Local Planning Authority prior to the approved development first being brought in to use. The development shall be undertaken in accordance with the approved details.

Reason: To prevent sky glow and in the interests of biodiversity

9. Prior to commencement of the use of the hereby approved Prototype Facility for the Production of Hydrogen from Ammonia an Emergency Plan (including response) shall be submitted to and approved in writing by the Local Planning Authority. The plan shall remain in place for the lifetime of the development.

Reason: To ensure that there are adequate measures in plan in the case of an emergency in the interests of health and safety.

10. Prior to the commencement of development a Landscape and Ecology Management Plan shall be submitted to and approved in writing by the Local Planning Authority. The Plan shall include a full landscaping scheme and specification along with a maintenance strategy. It should include the mitigation measures outlined in section 6 of the approved ecological appraisal. The development shall be undertaken in accordance with the approved details.

Reason: In the interests of biodiversity

11. Any trees, hedges or shrubs that are removed, are dying, being severely damaged or become seriously diseased within the lifetime of the development shall be replaced in the following planting season by trees or shrubs of a size and species similar to those originally required to be planted.

Reason: To ensure that the landscaped areas are provided for the lifetime of the development to secure the mitigation proposed by the application

12. No development shall commence unless and until a Biodiversity Management Plan to ensure that there is at least 11% Biodiversity Net Gain as a result of the development has been submitted to and agreed in writing by the Local Planning Authority. The net biodiversity impact of the development shall be measured in accordance with the DEFRA biodiversity metric as applied in the area in which the site is situated at the relevant time and the Biodiversity Management Plan shall include a management and monitoring plan for a period of 30 years.

Reason: To ensure that the optimal benefits of biodiversity are achieved

13. The surface water drainage and foul water drainage for the hereby approved Prototype Facility for the Production of Hydrogen from Ammonia shall be strictly in accordance with the Flood Risk Assessment and Drainage Strategy, reference HIMA2-BED-00-XX-RP-C-2721 Revision 01, by BE Sustainable Placemaking

Reason: To ensure that the development manages surface water effectively to ensure flood risk is not increased elsewhere.

Notes

1. The applicant is advised that all planning permissions granted on or after the 1st September 2013 may be subject to the Community Infrastructure Levy (CIL). Full details of CIL are available on the Council's website at www.bassetlaw.gov.uk/everything-else/planning-building/community-infrastructure-levy

The proposed development has been assessed and it is the Council's view that CIL is not payable on the development hereby approved as the development type proposed is zero rated in this location.

2. The applicant has indicated that environmental permits will be sought for foul and trade effluent discharge into the environment. Please note that the granting of planning permission does not guarantee the granting of an Environmental Permit. Upon receipt of a correctly filled in application form The Environment Agency will carry out an assessment. It can take up to 4 months before we are in a position to decide whether to grant a permit or not.
3. It is noted that the proposed operations will likely require an environmental permit or permits. In particular the Environment Agency would highlight the listed activity under the Environmental Permitting (England and Wales) Regulations 2016, Schedule 1, Part 2: Section 4.2 Part A(1) (a) Producing inorganic chemicals such as— 1. gases (for example ammonia, hydrogen chloride, hydrogen fluoride, hydrogen cyanide, hydrogen sulphide, oxides of carbon, sulphur compounds, oxides of nitrogen, hydrogen, oxides of sulphur, phosgene); In this case the Agency would strongly recommend that the operator utilises our advanced pre application advice service prior to submitting application for the required environmental permits.

It is also noted that the proposed operations, and corresponding inventories of hazardous substances will likely require notification to the competent authority under The Control of Major Accident Hazards Regulations 2015.

If the establishment has yet to be constructed and, when operational, will become subject to COMAH, the operator must send their notification within a reasonable time prior to start of construction. Similarly, should the scope of operations require the submission of a Safety Report under COMAH regulations, the safety report should be submitted a reasonable period of time before construction begins. This approach requires the operator to submit parts of a safety report at a point before conceptual design decisions are finalised.

4. Comments from Trent Valley Drainage Board are attached for the applicant's attention.