NL16 Tuff Trax
Wildscapes Planning Application
Reference PA/2021/1652
Kind Edward Street, Belton, DN9 1QN

Detailed Drainage Statement

INTRODUCTION
This planning application is for the construction of two wildlife pond with hibernacula on land at Tuff Trax, Kind Edward Street, Belton, DN9 1QN.

Background
The proposed wildlife ponds are delivered by Wildscapes to provide compensation ponds for Natural England's District Level Licensing scheme. The two ponds will enable the development under the North Lincolnshire local plan as a part of an area based strategy for the great crested newts, by acting as compensation for habitat losses as a result of development under the plan.

The estimated lifespan of the development is a minimum of 25 and, with appropriate reactive maintenance, there is no projected expiration of the life of the development.

The site is located on land owned by the owner of Tuff Trax, Kind Edward Street, Belton, DN9 1QN. The location of the two ponds are described by the following grid references; grid refs: SE 78802 07573 & SE 78821 07571. These sit on the edge of a field approximately 350m North of The Tumbles on King Edward Street in the village of Belton.
The site comprises rough grassland and scrubland bordered by drains and active arable land.

This Detailed Drainage Statement (DDS) has been written in accordance with the National Planning Policy Framework (NPPF) (Ref.1) and the associated technical guidance (Ref.2) and considers the flood risk from all sources.

Development Proposal
The proposed works comprise the excavation of 2 small wildlife ponds including buffer areas and hibernacula. These ponds will be 150m^2 in size with designated buffer areas of 3 meters around each in their entirety.

Site Description and Environmental Setting
The site is currently the border area of a former agricultural field. Ground elevations across the majority of the site are in excess of 5.0m AOD
Adjacent fields are bounded in part by a network of rhynes (drainage ditches). Adjacent fields to the south and east are bounded in part by King Edward Street and Temple Gardens in the village of Belton.

Stealgoose Drain runs parallel to the east side of the field. The River Torne is the nearest major watercourse and lies 2km to the north of the site and is supplemented

by the South Engine Drain and Folly Drain. The river and drains flow principally eastwards towards the River Trent.

The soils generally comprise naturally wet, acidic, sandy and loamy soil. These soils are affected by high groundwater levels and occasional winter flooding, resulting in them being seasonally wet or waterlogged.

The underlying geology consists of a geological border position of Sutton Sand formation and peat.

- **National Planning Policy Framework**

Flood Zone
The proposed site is located outside of the local flood zones as confirmed by the Environment Agency. The proximity to flooding zones is not a concern as the creation of ponds are considered Water Compatible by the Environment Agency. In the event of flooding in the area of construction the maximum impact of bunding displacement on flood waters would be 120m^3 per pond. The combined impact of the two ponds would result in a 0.0015m increase in the maximum flood water height per 10 hectares of any relevant flooding cell.

Environmental Conservation
The development supports paragraph *174: Planning policies and decisions should contribute to and enhance the natural and local environment*. Particularly with reference to points a) & d) on enhancing biodiversity and supporting biodiversity net gain objective. Natural England's District Level Licencing Scheme, under which this development is being delivered, is specifically established as component of national biodiversity net gain objectives. As such it constitutes the mitigation and compensation requirement of points a) and c) of the obligation placed on North Lincolnshire Council by component 180. Point d of paragraph 180 does provide an expectation of support from North Lincolnshire Council for this application given its primary objective of enhancing biodiversity.

Paragraph 155; Wildscapes have been specifically asked to address this element of the NPPF by the North Lincolnshire Council Sustainable Urban Drainage System Team. However, as the ponds that we have proposed are unpowered, passive structures which do not have any heating planned within them we feel that this is not relevant to the application. Further it wouldn't be appropriate to the objective of the development, or the ecological objectives of the NPPF, to view it in any way as a potential source for renewable to low-carbon energy.

Paragraph 157; Wildscapes have been specifically asked to address this element of the NPPF by the North Lincolnshire Council Sustainable Urban Drainage System Team. However, as the ponds that we have proposed are unpowered, passive structures which do not have any supplied energy planned within them we feel that this is not relevant to the application.

Paragraph 163; Wildscapes have been specifically asked to address this element of the NPPF by the North Lincolnshire Council Sustainable Urban Drainage System

Team. However, as the development of ponds is classified as flood zone compatible, the advice of the Ministry of Housing, Communities and Local Government in conjunction with the Department for Environment, Food and Rural Affairs is that neither the sequential test nor the exception are relevant or need to be passed for this type of development.

Paragraph 165; Wildscapes have been specifically asked to address this element of the NPPF by the North Lincolnshire Council Sustainable Urban Drainage System Team. However, as the development of ponds is classified as flood zone compatible, the advice of the Ministry of Housing, Communities and Local Government in conjunction with the Department for Environment, Food and Rural Affairs is that neither the sequential test nor the exception are relevant or need to be passed for this type of development.

- **North Lincolnshire Council - Development Standard 16: Flood Risk**

Item i) Based on current modelling the development will not increase the number of people or buildings at risk from flooding. The maximum increase in displacement of flood water through the development in lower than the AOD variance between the development location and the closest properties. On the adjacent public rights of way the maximum increase in displacement of flood water through the development will not impact the survivability of any persons who have remained in the vicinity.

Item ii) Based on current modelling the development will not impede the flow of flood water as it is outside of the Environment Agency flood zones.

Item iii) The proposed development does not impede any of the current access routes required for the maintenance of water courses. The existing access to Stealgoose Drain and other adjacent channels and rhynes will not be altered or affected by the development.

Item iv) The proposed development does result in a small reduction of the water storage capacity of the surrounding land in event of a flood. However this is at a minimal level then any mitigation implemented would have a net detrimental effect on the local environmental ecology and biodiversity whereas the development on its own will result in a net benefit. Further to this as the development establishes over the following months and years the environment will evolve naturally to have an increase in the local grounds water storage capacity and inhibit ground erosion in the event of a flood which will have a net benefit on local flood resilience.
The development is currently outside of Environment Agency determined flooding areas so this impact would only come into effect if the land were subject to a river or sea rise flooding event. Due to the bunded design of the ponds and their inherent water holding characteristics, that portion of land now has an increased water storage capacity and will reduce the impact of precipitation on the local water management and drainage features.

Item v) The proposed development will not result in an increase in the risk of flooding.

Item vi) Our expectation is that the development will not undermine the integrity of existing flood defences. The development doesn’t abut or amend existing water

management or drainage features and does not increase any run off or watershed towards them.

- **North Lincolnshire Council – Core Strategy 18: Sustainable Resource Use and Climate Change**

Wildscapes have been specifically asked to address this element of the North Lincolnshire Council Core Strategy by the North Lincolnshire Council Sustainable Urban Drainage System Team.

1. Meeting high water efficiency standards, and incorporating new technologies to recycle and conserve water resources. Whilst the pond is a water based feature, this component of the core strategy is not relevant to the proposed development as it has no active use of water from the mains network or other sources. Its collection of water is wholly passive.

2. Requiring the use of Sustainable Urban Drainage Systems (SuDS) where practicable. The sole purpose of the proposed development is the passive collection of water in order to create and maintain habitats for great crested newts. Therefore the incorporation of a sustainable drainage system is not practicable.

3. Supporting the necessary improvement of flood defences and surface water infrastructure required against the actions of climate change, and preventing development in high flood risk areas wherever practicable and possible. The natural enhancement of the site of the proposed development will improve ground water holding capacity and reduce the ground erosion impacts of flooding in the event that it occurs. In this way the development supports this component of the core strategy.

4. Meeting required national reductions of predicted CO2 emissions by at least 34% in 2020 and 80% in 2050 by applying the following measures on development proposals. Requiring all industrial and commercial premises greater than 1000 square metres to provide 20% of their expected energy demand from on site renewable energy until the code for such buildings is applied nationally. Where developers consider these Codes and targets cannot be met on the basis of viability they will be required to provide proof through open book discussions with the council at the planning application stage. Following the construction phase of the development the whole life cost of carbon emissions will be limited to scheduled inspections and maintenance works on a no more than annual basis. As the development will result in an enhancement of the local natural environment, this will result in an overall net negative output of CO2 and therefore exceed the requirements of this component.

5. Ensuring building design reduces energy consumption by appropriate methods such as high standards of insulation, avoiding development in areas subject to significant effects from shadow, wind and frost, using natural lighting and ventilation, capturing the sun's heat, where appropriate. As the proposed development is for the construction of ponds, this component of the core strategy is not relevant to this application.

6. Supporting development that minimises the consumption and extraction of minerals by making the greatest possible reuse or recycling of materials in new construction, and by making best use of existing buildings and infrastructure. The construction of the proposed development in its current form will rely solely on materials already present on site and therefore there is no consumption or extraction of minerals as part of the works.

7. Supporting development that seeks to minimise waste and facilitates recycling and using waste for energy where appropriate. The construction of the proposed

development will rely solely on the materials currently present on site and all of these will be retained. Therefore there is no waste generated during the construction phase. Thereafter, the only waste which may arise will be through any required maintenance works needed to preserve the development. This resulting waste will be in the form of brash which will be kept on site in the form of a habitat pile compliant with the DEFRA and Natural England standards for wild habitat management.

8. Ensuring that development and land use in areas close to the Humber Estuary and rivers responds appropriately to the character of the area, in the interests of preserving and making best use of limited resources. Archaeological and ordinance records of the North Lincolnshire area show that ponds are a common feature to the local landscape so this development will be in keeping with that character of the area. Furthermore, recent developments in local farming methods, land management and developments, both commercial and residential, approved by North Lincolnshire Council have resulted in a decline in the frequency of this local geographical feature. Therefore this proposed development will be restoring local character which has been lost.

9. Supporting development that will help to reduce the need to travel for people using that development. This proposed development is not designed or intended for human used therefore there is no reduction possible and this component of the core strategy is not applicable.

10. Ensuring development and land use helps to protect people and the environment from unsafe, unhealthy and polluted environments, by protecting and improving the quality of the air, land and water. The proposed development is solely intended to enhance the local environment and improving the local land and water quality through enhancing biodiversity. The proposed development will not create any unsafe or unhealthy pollution nor will it have a detrimental impact on air quality.

11. Supporting renewable sources of energy in appropriate locations, where possible, and ensuring that development maximises the use of combined heat and power, particularly at the South Humber Bank employment site and where energy demands for more than 2MW are required for development. The proposed development contain any element of energy usage, therefore this component of the core strategy isn't relevant.

12. Supporting new technology and development for carbon capture and the best available clean and efficient energy technology, particularly in relation to the heavy industrial users in North Lincolnshire, to help reduce CO2 emissions. The proposed development will not use any energy nor generate any CO2. Furthermore, as identified in response to component 4, the site will be a net negative generator of CO2 over its lifetime. Therefore, this component of the core strategy isn't relevant.

13. Promote the use of a greenspace strategy and a green infrastructure plan, where applicable, which could help reduce the effects of climate change. This component of the core strategy isn't relevant to the proposed development.

- **North Lincolnshire Council – Core Strategy 19: Flood Risk**

Wildscapes have been specifically asked to address this element of the North Lincolnshire Council Core Strategy by the North Lincolnshire Council Sustainable Urban Drainage System Team.

As previously stated, the proposed development has been categorised by Ministry for Housing, Communities and Local Government as Water Compatible and is neither vulnerable to flooding itself nor does it exacerbate the local flood risk to any significant degree.

1. It can be demonstrated that the development provides wider sustainability benefits to the community and the area that outweigh flood risk. The flood risk to the area isn't exacerbated to any significant degree by the proposed development. In contrast to this the proposed development will result in an increase in valuable biodiversity to benefit the local community.
2. The development should be on previously used land. If not, there must be no reasonable alternative developable sites on previously developed land. The land for the proposed development has previously been used for agricultural production. The proposed development will increase its capacity for biodiversity and reduce its vulnerability to flooding and therefore should be viewed as an appropriate change of usage for the land.
3. A flood risk assessment has demonstrated that the development will be safe, without increasing flood risk elsewhere by integrating water management methods into development. The proposed development will not increase the flooding risk elsewhere. We are in discussions with the Environment Agency and the local land drainage board and will incorporate any water management methods that they require into the final plans for the development.

Conclusion
The flood risk associated with the small wildlife ponds is considered low and the proposed works would not significantly increase flood risk adjacent to the site or elsewhere. Local water management and drainage facilities will not be measurably impacted.