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Your Ref: FUL/2023/0019
Date: 23 June 2023

My Ref: FW2023_0594
Tel No.: 0344 800 8020
Email: llfa@norfolk.gov.uk

Dear Sir/Madam,

Town and County Planning (Development Management Procedure) (England) Order 2015

Proposed Aggregate and Soil Recovery Facility (Part Retrospective) at Newall Plant Limited, Heron Farm, Bunwell Road, Besthorpe, NR17 2LN

Thank you for your consultation on the above site, received on 23 June 2023.

Standing Advice for Major Development below LLFA thresholds.

Officers have screened this application and it falls below our current threshold for providing detailed comment. This is because the proposal is for less than 100 dwellings or 2 ha in size and is not within a surface water flow path as defined by Environment Agency mapping.

To ensure that development is undertaken in line with Paragraph 167 and 169 of the NPPF the LLFA recommends that LPAs satisfy themselves of the following considerations prior to granting permission for major development below LLFA thresholds:

- 1. Is the development site currently at risk of flooding?*
- 2. How does the site currently drain?*
- 3. How will the site drain?*
- 4. What sustainable drainage measures have been incorporated into the design?*
- 5. How many SuDS pillars (Water Quantity (flooding), Water Quality (pollution), Amenity and Biodiversity) are included?*

At a high level, the following evidence should be submitted by applicants for review by the LPA to demonstrate compliance with Paragraph 169 of the NPPF.

A checklist to assist LPA's determine if this information has been submitted is set out below:

Outline / Masterplan	Full	Reserved Matters (unless condition specifies otherwise)	Discharge of Conditions	Documents to be Submitted to the LPA	Link to Section in LLFA Guidance	Provided?
<p>Is the development site currently at risk of flooding?</p> <p>The risk of flooding on the current site should be acknowledged. If any areas at risk of flooding are identified, development should avoid these areas in line with NPPF. Where this cannot be achieved, a robust strategy should be provided that includes adequate flood resistant and resilience measures incorporated in the design. This may require an emergency flood plan where appropriate. It should be noted that flood mapping has been considerably improved over time, and any Local Plan Site allocated prior to 2014 is unlikely to have considered surface water flooding as a risk. No development should have a condition relating to defining the flood risk to the site, the only exception would be to condition post development flood modelling scenarios at reserved matters stage following outline permission.</p>						
✓	-	-	-	Flood Risk Assessment / Statement with commentary of all sources of flood risk, using national and SFRA mapping, showing historical incidents especially in urban areas and describing how the development will apply the sequential approach. The document should include plans and drawings, detailed pre- and post-development scenarios, indication of mitigation (including compensatory storage or managed surface water flow path creation, consideration for access / egress and if an emergency plan is required) and freeboard allowance. Where appropriate required maintenance easements to watercourses and structures should also be demonstrated.	10	
-	✓	✓	✓	Flood Risk Assessment / Statement or update from outline permission, of all sources of flood risk, as above but may include up to date flood incidents or national / local guidance. The document should include plans and drawings, detailed pre- and post-development	10	

				flood modelling if appropriate, detailed mitigation (including compensatory storage or managed surface water flow path creation) and freeboard allowances. Where appropriate, emergency plans indicating safe access and egress and maintenance easements to watercourses.		
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How does the site currently drain?

The method through which the site currently drains should be described, such as whether there are existing infiltration features, ordinary watercourses within or at the boundary of the development, or existing surface water sewer infrastructure. Betterment of surface water runoff from an existing brownfield runoff must be considered. Brownfield surface water runoff rates and volumes should be attenuated as close to greenfield rates as possible. There is no historic right of connection to a surface water sewer if a development is brownfield and being redeveloped.

✓	✓	-	-	Commentary on how the current site drains with information where any existing drainage outlets are. Calculations on pre-development runoff rates and runoff volumes should be provided. If the site is brownfield, pre-development brownfield rates and volumes and equivalent greenfield rates and volumes should be provided.	11 14	
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How will the site drain?

The proposed method for draining the site should be in accordance with the sustainable drainage hierarchy; with a preference for shallow (<2 m deep) infiltration measures, followed by measures to drain to a nearby watercourse, otherwise discharging to a surface water sewer. The last method of draining a site would be to either a combined / sewer, or via deep infiltration methods (>2 m below ground level). It would be acceptable to condition Plan B if there is evidence that it can be achieved e.g. Plan A is infiltration with generalised testing across the site but is yet to be fully tested at the depth and location of SuDS in an outline application, Plan B is connection to a watercourse and it is adjacent the site with no third party access restrictions.

✓	✓	-	-	Drainage Strategy / Statement and outline drainage layout plan, evidencing the drainage destination that meets with the hierarchy using shallow (<2m deep) (Plan A) ahead of all other destinations. If only indicative infiltration testing has been carried out or if it cannot yet be carried out evidence of an alternative Plan B should be provided. Discharge to foul sewer is not acceptable.	11	
✓	-	-	-	Ground Investigation Report (for infiltration) and infiltration testing if only relying on infiltration showing that rates are better than	12 13	

				1x10 ⁻⁶ m/s or 0.0036 m/hr. Worse rates than this can only use infiltration as part of the proposal and a positive discharge outfall to a watercourse or sewer must also be provided. Evidence that seasonally high ground water levels are 1.2m below the base of the infiltration structure.		
✓	-	-	-	Preliminary "Outline" hydraulic calculations and commentary to explain how these meet the SuDS National Standards S1 to S9 and S12. The information should include infiltration rates found in the Ground Investigation Report, existing and proposed runoff rates / runoff volumes, appropriate attenuation required including climate change up to 40% and urban creep allowances up to 10% depending on density of development.	14 15	
✓	-	-	-	Preliminary development plan and landscape proposals, showing SuDS component locations and required maintenance easements (minimum of 3m to a linear feature but larger for a pond or basin and including 3.5m to a watercourse. Drainage components should be at least 3m from a proposed or existing root protection zone).	19	
✓	✓	-	-	Evidence of 'in principal' agreement of a third party for SuDS discharge to their system (e.g. Anglian Water, Highways Authority or third-party owner). Proprietary SuDS such as vortex pollution control e.g. downstream defender will not be acceptable to some adopting authorities and hence comment from them should be considered. Identification of the maintenance responsibility of any ordinary watercourse (including structures) within or adjacent the development. Consent for any culverts should already have been discussed and evidence provided that 'in principal' agreement has been undertaken with appropriate authority (EA, IDB, LLFA).	19	
✓	✓	-	-	Infrastructure and Construction Phasing Plan (including temporary works to drainage schemes required if the build out time is long).	9.2	
-	✓	✓	✓	Detailed development layouts showing SuDS locations, how the SuDS runoff volumes will be accommodated within the layout, discharge destinations and maintenance easements.	11	
-	✓	-	✓	Detailed drainage design hydrology / hydraulic calculations and drawings. Showing	14	

				all locations, dimensions and freeboard of every element of the proposed mitigation and drainage system (e.g. swales, storage areas, ponds, permeable paving, filter strips (including sewer details if proposed (pipe numbers, gradients, sizes, locations, manhole details etc.))). Catchment plans of each part of the drainage system to understand how runoff volumes and water quality assessments have been calculated.		
-	✓	-	✓	Specific ground investigations (Geotechnical factual and interpretive reports). Commentary should be provided to show how the testing has been undertaken at the proposed location and base depth of infiltration structures.	12	
-	✓	-	✓	Detailed maintenance program / schedule and on-going maintenance responsibilities of each part of the drainage infrastructure and where appropriate watercourses / culverts (including clear distinction between private / IDB / LLFA / Anglian Water).	19	
-	✓	-	✓	Detailed plan showing how flows on the site exceeding the 1% plus 40% climate change rainfall event and plan or commentary on how finished ground floor levels may assist with minimising impacts.	20	

What sustainable drainage measures have been incorporated into the design?

Surface water drainage systems should replicate natural drainage processes as closely as possible. SuDS such as permeable surfaces, swales, raingardens, tree pits, green roofs / walls or attenuation basins should be preferred on all development sites ahead of conventional drainage measures (piped systems). Geo-cellular storage crates can provide elements of SuDS such as attenuating the amount of water to prevent an increase in flood risk, however without another SuDS component (swales, filter strips or drains) they do not provide any water quality treatment.

✓	-	-	-	Preliminary indication including plans on how each of the four pillars of SuDS will be met (four pillars should be evidenced at greenfield sites and at least two for brownfield sites). Initial assessments of how the development will meet water quality, amenity and biodiversity requirements.	16 17 18	
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✓	✓	✓	✓	Brownfield development must consider the improvement it can make through redevelopment proposals. This includes identifying opportunities for retrofitting SuDS (water reuse / green roof / wall, permeable surfaces or raingardens) and improving flood resistance and resilience to buildings where possible. Existing drainage should be diverted rather than built over. All existing runoff rates and runoff volumes should be calculated, and improvements made to get them back as close to greenfield rates / volumes as possible. They must be no worse than existing and justification be given as to why they cannot be improved. It can be justified that infiltration is not possible if an applicant demonstrates that it would mobilise contaminants and would have adverse impacts on the environment.	11 14	
-	✓	-	✓	SuDS Water Quality Assessment, justifying using the simple index approach or detailed assessment as appropriate. The assessment should be provided for all runoff destinations; hence a separate assessment must be provided for groundwater or surface water depending on discharge location. Deep infiltration structures should undertake a detailed water quality assessment in line with any requirements of the EA.	16	
-	✓	-	✓	Detailed landscaping plans and commentary linking to SuDS amenity and biodiversity elements of the development.	17 18	

<https://www.norfolk.gov.uk/rubbish-recycling-and-planning/flood-and-water-management/information-for-developers>

We have no further comment to make at this time.

Yours sincerely

Mark Ogden

Flood and Water Manager
Community Services and Environment
Lead Local Flood Authority

www.norfolk.gov.uk