Medworth Energy from Waste
Combined Heat and Power Facility

PINS ref. EN010110
Document Reference: Vol 6.4
Revision 1.0
June 2022

Environmental Statement

Appendix 12B Stakeholder engagement and consultation comments in relation to Hydrology

Regulation reference: The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 Regulation 5(2)(a)

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Appendix 12B
Stakeholder engagement and consultation comments in relation to Hydrology

A summary of the relevant responses received in the EIA Scoping Opinion in relation to hydrology and confirmation of how these have been considered within the assessment to date is presented in **Table 12B.1 Summary of EIA Scoping Opinion responses for Hydrology.**

Table 12B.1 Summary of EIA Scoping Opinion responses for Hydrology

Consultee	Issue raised	Response
The Planning Inspectorate	Comment ID 4.7.2- Study Area Figure 10.3 of the Scoping Report depicts the water bodies located within 500m of the Proposed Development, yet the extent of the Study Area is described as being 1.5km from the Proposed Development. The Applicant should make effort to agree the Study Area with relevant consultation bodies. A plan should be provided which shows all of the hydrological features identified within the Study Area.	The Study Area is defined in **Section 12.4** and shown on **Figure 12.3a**. The hydrology Receptors within the Study Area are identified in **Section 12.6** (Potential Receptors) and their location is shown on **Figure 12.3a, Volume 6.4.**
The Planning Inspectorate	Comment ID 4.7.3- If the Proposed Development includes works that may affect the existing drainage regime, including ditches, these should be assessed in the ES where significant effects are likely to occur. The assessment should specifically address the works required for the Grid Connection and the use of HDD. Cross reference should be provided where there may be impacts on ecology or protected species.	A small number of crossings of the Internal Drainage Board (IDB) system may be required for the underground cable element of the Grid Connection. The Hundred of Wisbech Internal Drainage Board (HWIDB) advised (consultation meeting on 25/03/20) that Horizontal Directional Drilling (HDD) is preferred as opposed to coffer dams and open trench construction. The potential impacts of watercourse crossings on the IDB drainage system and appropriate mitigation measures are assessed in detail in the **Flood Risk Assessment (FRA)** (**Environmental Statement Appendix 12A, Volume 6.4**) and cross referenced in **Section 12.9** (Environmental assessment of Hydrology effects) of **Environmental Statement Chapter 12: Hydrology**. Potential impacts of watercourse crossings on the ecology or protected species are assessed in detail in **Chapter 11: Biodiversity** and is cross referenced in **Section 12.9** (Environmental assessment of Hydrology effects) of **Environmental Statement Chapter 12: Hydrology, Volume 6.2** where required.
The Planning Inspectorate	Comment ID 4.7.4- The ES should assess potential impacts from the Proposed Development during construction and operation on all protected nature conservation sites and	The statutory and non-statutory nature conservation sites near the Proposed Development are described in detail in **Chapter 11: Biodiversity** and cross referenced in **Section 12.5 of**

Consultee	Issue raised	Response
	not solely focus on European sites. The Applicant should make effort to agree which sites should be included in the assessment with the relevant consultation bodies.	**Environmental Statement Chapter 12: Hydrology, Volume 6.2.** There are no statutory nature conservation sites of international or national importance designated for water related interest within the Study Area. There are two potentially water-dependant non-statutory biodiversity sites partially near the Study Area.
Inspectorate	Comment ID 4.7.5- It is not clear whether residential Receptors have been included within the list of identified flood risk Receptors. The ES should also consider the impact from hydrology on nearby residential properties.	Humans/properties/infrastructure downslope adjacent to the DCO Order limits were identified as Receptors that could be subject to likely significant effects in **Section 12.6** (Potential Receptors) of **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
The Planning Inspectorate	Comment ID 4.7.6- The ES should explain the potential impacts on hydrology from the construction of the possible new access route to the south of the site	The potential impacts on hydrology from the Proposed Development is assessed in detail in the **FRA** (**Appendix 12A, Volume 6.4**) and cross referenced in **Section 12.9** (Environmental assessment of Hydrology effects) of **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
The Planning Inspectorate	Comment ID 4.7.7- The Applicant should make effort to agree the scope of the assessment from flood risk with the relevant consultation bodies. The Applicant should ensure that climate change allowances used to inform the assessment are sufficiently up to date and reflect relevant guidance from the Environment Agency (EA). The ES should clearly state which allowances have been used for the purposes of the assessment of all flood risk types, how they compare to the EA's current guidance, applicable at the time of submission of the application, and identify any differences should they occur.	The **FRA** approach was agreed with the Environment Agency during a consultation meeting held on 28/04/21. Details of the consultation are provided in the **FRA (Appendix 12A, Volume 6.4).**
The Planning Inspectorate	Comment ID 4.7.8- It is not clear whether any works to existing culverts or new culverts would be required as part of the Proposed Development, potentially to support access improvements. Any such works should be described (including locations and dimensions) and fully assessed in the ES.	A small number of crossings of IDB drains (culverts or bridges) are proposed. These are described and assessed in the **FRA** (**Appendix 12A, Volume 6.4**) and cross referenced in **Section 12.9** (Environmental assessment of Hydrology effects) of **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.

Consultee	Issue raised	Response
Anglian Water	The scoping report states that any water from sewer flooding would be intercepted by local drainage ditch networks. However Anglian Water as sewerage undertaker would wish to ensure that proposed Combined Heat and Power facility does not give rise to detriment to our customers or pollutes the water environment. Consideration should be given to all potential sources of flooding including sewer flooding as part of the Environmental Statement and related Flood Risk Assessment (FRA). We understand that there is expected to be a requirement for a connection to the public sewerage network as set out in the Scoping Report. It is suggested that the Environmental Statement and related Flood Risk Assessment should include reference to the foul sewerage network and sewage treatment. Anglian Water would welcome further discussion with MVV Environment Ltd in relation to the foul drainage strategy for the above project prior to submission of the application to the Planning Inspectorate.	The **FRA** (**Appendix 12A, Volume 6.4**) provides an assessment of all potential sources of flood risk (including sewer flooding) to the Proposed Development and the need for mitigation measures. The findings of the **FRA** are cross referenced in **Section 12.5** (Baseline- Flood Risk) and **Section 12.9** (Environmental assessment of Hydrology effects) of **Environmental Statement Chapter 12: Hydrology, Volume 6.2**. Consultation meetings were held with Anglian Water on 02/04/20 and 18/03/21 to discuss the foul water/sewerage strategy, potable water requirements and protection of Anglian Water assets.
Cambridgeshire County Council (CCC)	The scoping report submitted includes information on the water environment proposals. The principles of surface water drainage outlined within the scoping report are acceptable. However, Cambridgeshire County Council as the Lead Local Flood Authority (LLFA) expect a full flood risk assessment and surface water drainage strategy to be submitted to support any application which must include: i. How the proposed surface water drainage scheme has been determined following the drainage hierarchy; ii. Predevelopment run-off rates; iii. Post development run-off rates with associated storm water calculations; iv. Discharge location(s); v. Drainage calculations to support the design of the system; vi. Drawings of the proposed surface water drainage scheme including sub catchment breakdowns where applicable; and vii. Maintenance and management plan of the surface water	The principles of the surface water management for the Proposed Development are provided in the **FRA** (**Appendix 12A, Volume 6.4**). Surface water runoff from the EfW CHP Facility (construction and operation phases) will be managed and attenuated on site so that the risk of flooding is not increased off-site. Consultation meetings were held with HWIDB to confirm discharge locations and rates. A consultation meeting was held with CCC to confirm the drainage management approach.

Consultee	Issue raised	Response
	drainage system (for the lifetime of the development) including details of future adoption."	
CCC	The Applicant should, as part of the surface water strategy, demonstrate that the requirements of any local surface water drainage planning policies have been met and the recommendations of the relevant Strategic Flood Risk Assessment and Surface Water Management Plan have been considered.	The **Outline Drainage Strategy** (**Appendix 12F, Volume 6.4**) has taken into consideration the recommendations of the relevant Strategic Flood Risk Assessment and Surface Water Management Plan documents including those listed in **Section 12.3**.
CCC	Plans for the site should demonstrate how leachate from the site and any flooding incidents will be managed and the local land quality protected	The potential impacts of mobilisation of contaminants off-site and appropriate mitigation are set out in **Section 12.9** (Environmental assessment of Hydrology effects) of **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
Environment Agency	We are satisfied that the Scoping Report has identified the need for a detailed Flood Risk Assessment (FRA) to be submitted, and with the methods suggested.	Noted.
Environment Agency	As noted in the report, the area is located within flood zone 3 (high risk). The Environment Agency has modelled the watercourse in the vicinity of the proposed site. Please request Product 8 (Hazard Mapping) Flood Risk assessment Data Information, by writing to Customers and Engagement, Ceres House, Searby Road, Lincoln, LN2 4DW or by email at LNenquiries@environment-agency.gov.uk. Details of what the Flood Risk Assessment Data information products contain is available at https://www.gov.uk/guidance/flood-risk-assessment-for-planningapplications Get information to complete an assessment	Detailed flood model data for the Proposed Development was provided by the Environment Agency. The data has been used in the **FRA** (**Appendix 12A, Volume 6.4**) to assess the flood risk and levels at the Proposed Development. The findings of the **FRA** are cross referenced in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
Marine Management Organisation	(Mean high water spring (“MHWS”) tide) The MMO notes that the proposed development area for the Project is located approximately 500 meters from the River Nene, with no development proposed below MHWS. As such, a deemed marine licence will not be	Noted.

Consultee	Issue raised	Response
	required. Should the requirement for works below MHWS change the MMO should be notified.	
Marine Management Organisation	At this stage, a number of potential pathways appear to have been scoped in for further assessment through which the terrestrial works may indirectly affect the marine environment. As such, the MMO will continue to monitor the Project and should be consulted further.	The potential effects on marine environment are outside the scope of the assessment for **Chapter 12: Hydrology, Volume 6.2**. This is assessed in **Chapter 11: Biodiversity, Volume 6.2.**
Hundred of Wisbech Internal Drainage Board (IDB)	As can be seen from the attached copy of the Board's District Plan this site is surrounded and bisected by Board's Drains, shown dark blue, which are protected by its byelaws made under the Land Drainage Act (LDA). It should be noted that the combined heat and power connection route along the route of the currently ""mothballed"" railway line to the north and the grid connection route to the east up to the All0l are also within the Board's District. Consent for works within, under or over the protected watercourses and the associated 9.0m wide maintenance access strip(s) require the Board's prior written consent. The piping and filling of any watercourses within the Board's rateable area requires its prior written consent. Contravention of both the Board's Byelaws and the Land Drainage Act 1991 (LDA) is a criminal offence which could lead to enforcement action being taken against the perpetrator."	Consultation meetings were held with HWIDB to present the Proposed Development layout and discuss requirements to be accommodated within the drainage strategy/Hydrology chapter and secure any necessary IDB consents. This is discussed in detail in the **FRA** (**Appendix 12A, Volume 6.4**) and cross referenced in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
Hundred of Wisbech IDB	Chapter 11 Hydrology (page 150} The contents of this chapter appear to be comprehensive and cover most aspects. However, problems have been encountered in the past relating to works requiring the provision/amendment of road layouts and alignments, to accommodate the specialist haulage vehicles, and export cable routes, or similar, whether they are under or over ground. Whilst the point of connection has yet to be determined at least potential connection and the potential routes have been included.	The FRA and proposed drainage strategy (**Appendix 12A, Volume 6.4**) have followed the general guidance provided under item ix of the **EIA Scoping Opinion** (**Environmental Statement Chapter 1 Introduction Appendix 1D**). The FRA has demonstrated how flood risk to the proposed development and any potential to increase flood risk to third parties due to the development, will be managed over the lifetime of the site, taking climate change into account. The findings of the **FRA** are cross referenced in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.

Consultee	Issue raised	Response
	General guidance on the provision of an FRA/Drainage Strategy are detailed in section C below. The proposals should also set out how they will be resilient to the changing climate, and must therefore include measures to: • Minimise the risk of flood impacts • Enhance water efficiency • Adapt to the potential impacts of drought	Potential opportunities in respect of rainwater capture and recycling are discussed in **Table 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
Hundred of Wisbech IDB	Given the nature of the processes involved it is considered that there are potential opportunities in respect of rainwater capture and re-cycling which could benefit flood risk and water level management.	Potential opportunities in respect of rainwater capture and recycling are discussed in **Table 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
Hundred of Wisbech IDB	We recommend that any EIA includes, or any planning application for development is accompanied by a Flood Risk Assessment (FRA)/surface water drainage strategy to address: - all sources of flood risk, including those from ordinary watercourses, surface water and groundwater to the development; - how surface water drainage from the development would be managed on-site and show compliance with the written Ministerial Statement HCWS 161 by ensuring that Sustainable Drainage Systems (SuDS) are put in place; - how any phasing (if proposed) of the development would affect the overall drainage strategy and what arrangements, temporary or otherwise, would need to be in place at each stage of the development in order to ensure the satisfactory performance of the overall surface water drainage system for the entirety of the development. This supporting information would assess the potential for the development to increase the risk of flooding from the proposal or how surface water run-off through the addition of hard surfaces would be managed. It will show how this would be managed to ensure that the development does not increase flood	The FRA report is provided in **Appendix 12A, Volume 6.4**. The **FRA** demonstrates how flood risk to the Proposed Development and any potential to increase flood risk to third parties due to the development, will be managed over the lifetime of the site, taking climate change into account. The proposed surface water drainage strategy describes how runoff from the site will be managed and attenuated on site so that the risk of flooding will not be increased off-site. The most suitable surface water drainage strategy for the site was ascertained by undertaking a high level SuDS Assessment considering the SuDS hierarchy.

Consultee	Issue raised	Response
	risk on the site or elsewhere, in line with National Planning Policy Framework (paragraph 103). (Further detail provided in hard copy response in Scoping Opinion)	
Norfolk County Council (NCC)	Please note, if there are any works proposed as part of this application that are likely to affect flows in an ordinary watercourse, then the Applicant is likely to need the approval of the relevant IDBs. It is important to note that works carried out on the floodplain of a main river, less than 8 metres from the riverbank, culvert or flood defence structure and/or 16 metres if it is a tidal main river must be consented by the EA.	Consultation meetings were held with HWIDB and KLIDB to present the Proposed Development and discuss the IDB requirements to be accommodated within the **Outline Drainage Strategy** (**Appendix 12F, Volume 6.4**)/**Environmental Statement Chapter 12: Hydrology**, **Volume 6.2** and secure any necessary IDB consents for works near the IDB drains, crossings of IDB drains and water discharge into IDB drains.
Borough Council of King's Lynn and West Norfolk	The Borough Council has adopted a SFRA Level 1 and Level 2 which is not included in Table 11.1. All sources of flooding should be considered in accordance with the SFRA, NPPF and relevant NPPG.	An assessment of flooding from all sources is provided in the **FRA** (**Appendix 12A, Volume 6.4**). The assessment considered the Borough Council's SFRA Level 1 and Level 2 (Table 12.4). The findings of the **FRA** are cross referenced in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.

An overview of the key stakeholders consulted following scoping and a summary of the issues discussed in relation to hydrology is presented in **Table 12B.2 Summary of engagement subsequent to scoping regarding Hydrology** below.

Table 12B.2 Summary of engagement subsequent to scoping regarding Hydrology

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
King's Lynn IDB	Pre-application consultation virtual meeting 15/07/20	Consent requirements The King's Lynn IDB (KLIDB) is the consenting authority for works affecting any ordinary watercourses (not Main River) within its District. Consents are required before undertaking the following works: • Works within 9m of the top of the bank of any IDB maintained watercourses;	We note the requirement for written consents from the IDB. This is assessed in detail the **FRA** (**Appendix 12A, Volume 6.4**). The findings of the FRA are cross referenced in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
		• Stop up, divert, impede or alter the level of or direction of flow of water in, into or out of any watercourse within the IDB District; • Installation of new culverts for any IDB watercourse (adopted watercourses and other ordinary watercourses).	
King's Lynn IDB		<u>Standoff distance from IDB adopted watercourses</u> The types of work that King's Lynn IDB would typically allow within 9m of adopted watercourses depends on a number of factors such as which of the watercourse banksides is used for access/maintenance, the length of time material/works would be likely to take place and IDB's maintenance schedule for the watercourse. Material stockpiling from excavations is likely require a temporary consent depending on the dimensions and duration of the stockpiles.	We note the requirement for standoff distance from the IDB watercourses. This is assessed in detail the FRA (**Appendix 12A, Volume 6.4**). The findings of the FRA are cross referenced in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
King's Lynn IDB (KLIDB)	Email 22/07/20	<u>Culvert design</u> King's Lynn IDB provided the Applicant the IDB standard design for a culvert. Other culvert designs in line with the Civil Engineering Specification for the Water Industry can be considered. The IDB acknowledged that the Proposed Development will use existing field accesses and ditch crossings where possible to access pole locations. If new culverts are proposed, the culvert design is required to be submitted for approval by the IDB.	We note the requirement to submit the design for any proposed culvert for approval by the IDB.
KLIDB		The IDB confirmed that a height of 12-18m should be provided for watercourse maintenance activities beneath the proposed overhead lines and poles.	We note the requirement of the IDB with regards to clearance heights over the IDB maintained watercourses. The final Grid Connection proposals no longer include OHL.

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
KLIDB		Underground cable corridor The KLIDB confirmed that a consent is required for works within 9m of the bank top of any IDB maintained watercourse. The IDB indicated that there is flexibility to reduce the standard stand-off distance from 9 m to potentially 5 m (on both sides of the drain) depending on the specific drain. Factors considered by KLIDB would include the width of the drain and any existing stability issues, maintenance schedule for the drain and proposed depth of the cable.	We note the KLIDB requirements with regards to stand-off distance from maintained drains. This is considered in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
KLIDB		KLIDB indicated that the cable should be positioned a minimum of 2 m below the bed of the drain. HDD is preferred over open cut method for larger drains. If the method involves pumping of the drain, the timing of the works is important as it should minimise any impacts on the IDB drainage network. KLIDB confirmed that location of HDD launch/receive sites within 9 m of adopted watercourses would require prior consent from KLIDB (Byelaw 10).	The KLIDB requirement for the cable depth beneath the bed of the IDB watercourses and cable installation method is considered in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
KLIDB		It was confirmed that as part of the application process a Statement of Common Ground and Protective Provision are being produced. KLIDB indicated that KLIDB has a draft Protective Provision document which can be used as a starting point. It was confirmed that this will be issued in the summer, just before the proposal submission.	We note that the KLIDB will provide a draft Protective Provisions document (**Draft DCO, Volume 3.1**).
KLIDB		Overhead Line (OHL) KLIDB indicated that there is flexibility to reduce the standard stand-off distance from edge of IDB protected drains from 9 m to potentially 5 m or lower (on both sides of the drain) depending on the specific drain. A consent from KLIDB would be required (Byelaw 10). Factors considered by KLIDB would include the width of the drain, maintenance schedule for the drain and types of machines used, access routes.	We note that the KLIDB may be flexible on the stand-off distance in relation to the OHL poles. Further consultation on this matter is anticipated prior to the DCO submission. The final Grid Connection proposals no longer include OHL.

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
		KLIDB requested that an excel spreadsheet is provided containing the proposed cable position, proximity and crossing of DB drains and vertical clearance.	
KLIDB		KLIDB confirmed that the minimum vertical clearance between the OHL and the IDB protected drains is 9 m without the requirement for Byelaw 10. It was also confirmed with KLIDB that the proposed wood pole dimensions meet the Energy Networks Association Technical Specification 43 with regard to clearance distances.	We note the required vertical clearance between the OHL and KLIDB watercourses. The final Grid Connection proposals no longer include OHL.
HWIDB	Site meeting 20/08/20	<u>Consent requirements</u> The Hundred of Wisbech IDB confirmed that the IDB is the consenting authority for works affecting any ordinary watercourses (not Main River) within its District. Written consents are required before undertaking works within 9m of the top of the bank of any IDB maintained watercourse. The IDB indicated that the formation of internal access roads and/or car parking within the 9m access strip may be acceptable.	We note the requirement for a Land Drainage Consent from the IDB for works within 9m of the top of the bank of any IDB maintained watercourse. This is considered in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
HWIDB		<u>Watercourse crossings</u> The IDB indicated that directional drilling is preferred as opposed to coffer dams and open trench construction. If the cable will be above the culverted watercourse this would represent a permanent obstruction for access the culverted watercourse and would need consultation with the IDB. If the cable will be below the watercourse the proposed cable depth below the watercourse will need to be discussed with the IDB. The IDB highlighted the importance of the drain bisecting the EfW CHP Facility (between IDB nodes 33 and 46). Two design options for the re-positioning of the drain were suggested by the IDB as an alternative to providing an access culvert.	The underground cable route indicates that there are a small number of watercourse crossings of culverted drains beneath the A47. In addition, the proposed main site access via New Bridge Lane would require crossing of a drain bisecting the EfW CHP Facility to provide access to the northern area of the site. We note the requirements of the HWIDB with regards to watercourse crossings. This is considered in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
		The IDB advised that any watercourse crossing proposals should be future proofed to ensure that the IDB system could be deepened in the future if required and reinforcement of the channel profile using piling could be undertaken without compromising or damaging the cable or other infrastructure.	
HWIDB	Email 25/01/21	Run-off from the Permanent Development The IDB indicated that the EfW CHP Facility is within a Critical Drainage Area (CDA) and any proposed discharges into the IDB network need to be the equivalent greenfield rate of run-off. Further information on the CDA will be requested from the Environment Agency and Lead Local Flood Authority (CCC). The IDB also indicated that a single discharge point to the IDB drains is preferred. The location of the outfall would primarily be guided by the layout of the EfW CHP Facility. An outfall near IDB drain node 46 (eastern edge of the Facility) is recommended as this is downstream of the IDB system adjacent to the EfW CHP Facility. The IDB encourages a solution that considers the whole water cycle process, including water re-cycling. Discharge limits/pollution prevention are matters for the Environment Agency and the District Council's Environmental Health Department.	We note the requirements of the HWIDB with regards to the management and discharge of surface water run-off from the EfW CHP Facility. This is considered in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
HWIDB		Standoff distance from IDB watercourses The IDB advised that no poles, transformers or other infrastructure should be placed within its IDB drains or associated maintenance access strips with any cable or pole mounted transformers outside of these mounted as high as possible. The IDB would prefer clear level grassed access strips devoid of any encroachment. However, the IDB confirmed that it is possible to apply for encroachment and/or reduction in the maintenance access strips.	We note the requirements of the HWIDB with regards to the standoff distance from IDB watercourses. This is considered in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
		The IDB indicated that for health and safety reasons any potential "conflicts" between the Proposed Development and the IDB's operations must be eliminated, for example, traffic movements, emergency access routes, muster points etc. The IDB confirmed that all consent applications are considered on a "case by case" basis and, in view of the importance of these structures it is suggested that these would need to be the subject of prior discussion with the IDB.	
HWIDB		Discharge consents into the HWIDB network A large portion of the Boleness Road Industrial Estate, to the north of the EfW CHP Facility, was the subject of an agreement with the HWIDB that alleviated the need to seek discharge consent within this area. IDB to confirm if information is available on the location of consents outside of the "exemption area".	Noted.
HWIDB	Pre-application consultation virtual meeting 25/03/2021	EfW CHP Facility – Operational Phase HWIDB confirmed minimum stand-off distance from edge of IDB protected drains is 6 m (on both sides of the drain), preferably 9m. HWIDB confirmed that hardstanding and car park areas within the 6m strip are acceptable.	We note the requirements of the HWIDB with regards to the standoff distance from IDB maintained watercourses. This is considered in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
HW		In response to the current Proposed Development layout plans of the northern edge, the HWIDB indicated that the internal road, grassed area, and car park are acceptable within the maintenance strip. HWIDB indicated that MVV would be notified in advance if access through the site is required during maintenance works.	We note the requirements of the HWIDB with regards to the standoff distance from IDB maintained watercourses. This is considered in **Section 12.9** (Environmental assessment of Hydrology effects **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
		In response to the current plans of the eastern edge HWIDB indicated that it might be possible to move the security fence to the eastern edge of the IDB drain. In response to current plans for the southern edge, the HWIDB confirmed that this is not an IDB drain and therefore no maintenance strip requirement applies. The closest IDB protected drain on the southern boundary of the site is on the southern edge of New Bridge Lane.	
HWIDB		HWIDB did not object to the proposals to partially culvert the drain crossing the centre of the EfW CHP Facility Site, but indicated that design detail of the proposed culvert would need to be submitted for review and approval. HWIDB are to provide details of the standard design for culverts. HWIDB agreed that the separation dam should be moved to the open section of the drain.	We note that any proposed culvert designs would need to meet the standards set by the HWIDB. This is considered in **Section 12.9** (Environmental assessment of Hydrology effects **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
HWIDB		<u>Permanent cable</u> HWIDB indicated that the shallow ground in the section of the proposed underground cable route approximately 370m southeast of the EfW CHP Facility is unstable (running silt) which may cause collapse of the drains. HWIDB indicated that proposed crossing of the IDB drain near A47 could potentially be moved further north on New Bridge Lane. HWIDB indicated that undergrounding of the cable in itself would not be a problem but there could be a risk of future damage from HWIDB maintenance vehicles.	We note the HWIDB feedback with regards to the underground cable route. This is considered in **Section 12.9** (Environmental assessment of Hydrology effects **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
HWIDB		HWIDB indicated that the cable should be positioned about 5 to 6 m below the bed of the drain. HDD is preferred over open cut method although no HDD send/receive pit should be located within the IDB maintenance strip.	We note the requirements of the HWIDB with regards to the depth of the cable below the IDB drains and the installation method.

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
			This is considered in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
HWIDB		<u>EfW CHP Facility – Construction Phase</u> HWIDB indicated that the minimum stand-off distance from the IDB protected drains is 6m. The IDB maintenance activities range from monthly (e.g., grass cutting) to annually (e.g. stubbing)	We note the required minimum stand-off distance from the HWIDB protected drains. This is considered in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
HWIDB		HWIDB indicated that the temporary headwall would need consent from the IDB. HWIDB to provide details of the standard design for headwalls. HWIDB indicate that it may be possible to transfer maintenance of the drains (e.g., the drain crossing the centre of the EfW CHP Facility Site) to the Applicant, depending on the review of the proposals.	We note that the temporary headwall would need prior consent from the IDB. We note the IDB feedback with regards to maintenance responsibility for the IDB drains.
Anglian Water	Pre-application consultation virtual meeting 02/04/20	<u>Water requirements</u> Anglian Water will review the proposed water requirements during construction phase (to be provided by MVV) and advise whether the current supply is suitable or if upgrades will be required to facilitate the construction phase. Anglian Water confirmed they would need to undertake further analysis of the potable water requirement for the EfW CPH Facility to determine whether the existing mains water supply could accommodate these. Anglian Water highlighted that the existing mains water pipe diameter, 125mm, together with the water demands of the surrounding industrial area may result in a need to upgrade the mains water supply to service the Facility.	The information provided by Anglian Water on 01/02/21 has been considered in the proposed water main connection route.

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
Anglian Water		Surface water drainage strategy in operation phase Anglian Water noted the intention to discharge surface water run-off into the IDB ditches but understood this was subject to agreement. Anglian Water requested that MVV update them if this position changes. Anglian Water advised that they would be seeking assurance through a Flood Risk Assessment that the EfW CHP Facility would not impact the capacity of their network.	Not applicable as runoff from the EfW CHP Facility will be discharged into the IDB drains. This is addressed in the **FRA** (**Appendix 12A, Volume 6.4**).
Anglian Water		Foul water and sewerage strategy in operation phase Anglian Water will review the proposals for dealing with trade effluent (to be provided by MVV) and confirm whether any infrastructure upgrades are required and if so, a proposal for the upgrades, information on the process for securing these upgrades, provisional costs and potential timescales will be provided. Anglian Water confirmed that non-domestic requirements/standard trade effluent conditions are assessed on a case-by-case basis. Anglian Water indicated that the discharge costs are likely to be subject to a bespoke agreement but this would need to be confirmed.	The information provided by Anglian Water on 01/02/21 has been considered in the proposed foul drainage.
Anglian Water		Protection of assets Anglian Water advised that their assets should be protected during any pre-construction survey works. Anglian Water advised that notification is required of any works to be undertaken in the vicinity of their assets and a risk assessment to demonstrate how these would be protected is required. Anglian Water advised that they should be consulted if crossing or diversion of any Anglian Water assets is required as part of the Proposed Development. Anglian Water requested information on the foundations strategy for the Facility with a risk assessment to demonstrate that there would be no risk of contamination to the water supply network from the Proposed Development and details of any proposed mitigation.	Further consultation with Anglian Water may be required following design freeze to present proposals and discuss requirements to be accommodated within the Proposed Development to protect Anglian Water's assets.

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
Anglian Water	Pre-application consultation virtual meeting 18/03/21	Anglian Water confirmed that no reinforcement of the foul water connection would be required and that a connection to the pumping station on Algores Way can be assumed. Potable water does require reinforcement and connection to the main located south of the A47 and this could be provided, in the view of Anglian Water, but itself or by the Applicant. Finally draft wording for the safeguarding of asset was exchanged.	The Applicant has included land to enable the connection to the existing mains south of the A47 within the Order limits.
Environment Agency	Email 03/02/20	Product 4 data (Fluvial/tidal flood risk map, historical flooding map, Lincolnshire and Northamptonshire Tidal Overtopping and Tidal Breaching Hazard Mapping).	The detailed flood model data was assessed in the **FRA** (**Appendix 12A, Volume 6.4**). The findings of the **FRA** are cross referenced in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.
Environment Agency	Pre-application consultation virtual meeting 28/04/2021	EfW CHP Facility The Environment Agency agreed with the proposed vulnerability classification for the proposed development but recommended that this is confirmed with LPA.	Agreed approach provided in **FRA** (**Appendix 12A, Volume 6.4**). The vulnerability classification was confirmed with the LPA noted.
Environment Agency		The Environment Agency indicated that the design flood event for Essential Infrastructure within an area where Hazard Mapping is available is the tidal flood event with a 0.1% AEP plus climate change. This appears to be set out in Environment Agency internal guidance but will be confirmed by Environment Agency.	Agreed approach provided in **FRA** (**Appendix 12A, Volume 6.4**).
Environment Agency		The Environment Agency indicated that new development should provide mitigation for addressing the residual flood risk, in particular raising of ground levels above the 0.5% AEP with climate change residual risk event. Environment Agency confirmed that floodplain compensation is not required as the EfW CHP Facility is protected by flood defences.	Agreed approach provided in **FRA** (**Appendix 12A, Volume 6.4**).

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
Environment Agency		Permanent cable corridor Environment Agency confirmed as having no jurisdiction in relation to the underground cable. Environment Agency indicated that the EA Flood Map for Planning is being updated – the flood extends are unchanged but the area is no longer shown as defended.	Figures showing tidal flood risk in the **FRA** (**Appendix 12A, Volume 6.4**) and **Chapter 12: Hydrology (Volume 6.2)** have been updated accordingly.
Environment Agency		Permanent cable corridor Environment Agency confirmed as having no jurisdiction in relation to the underground cable. Environment Agency indicated that the EA Flood Map for Planning is being updated – the flood extends are unchanged but the area is no longer shown as defended.	Figures showing tidal flood risk in the **FRA** (**Appendix 12A Volume 6.4**) and **Chapter 12: Hydrology (Volume 6.2)** have been updated. .
Environment Agency		The Environment Agency confirmed that Essential infrastructure is required to remain operational at all times and finished floor levels should be set above the 0.1% AEP 2115 Hazard Mapping Breach level. In order to determine if a site can remain operational, the site should not become inundated in any flood event. The design flood event refers to the 1% or the 0.5% flood event, and even though the site would remain dry (as it is located within a defended floodplain) the residual risk from a breach for the 0.1% would flood the site and potentially cause the operation to cease. If the site is classified as Less vulnerable, the Environment Agency would expect the finished floor levels to be set above the 0.5% AEP 2115 Breach Map.	Agreed approach provided in **FRA** (**Appendix 12A, Volume 6.4**).
CCC	15/01/21 email	CCC provided historical flooding information. CCC indicated that all planning applications in Cambridgeshire should follow the Surface Water Drainage Guidance for Developers document and Flood and Water Supplementary Planning Document. Any development within flood zone 3 should be avoided and if flood zone is taken up then flood zone compensation must be provided.	Fluvial/tidal flood risk and surface water drainage is assessed in detail in the **FRA** (**Appendix 12A, Volume 6.4**). The findings of the **FRA** are cross referenced in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
CCC	Pre-application consultation call 19/04/2021	Draft surface water drainage strategy. CCC agreed with the proposed drainage strategy for the EfW CHP Facility but noted that above ground SuDS techniques should be used where possible. CCC acknowledges the need for underground attenuation storage for sites with space constraints but requested that a SuDS assessment is included in the application and whether other SuDS techniques (e.g., permeable paving and filter drains) could be used in combination with the proposed tanked system.	We note the CCC's request that a SuDS assessment is included in the application and that other SuDS techniques be considered in conjunction with the tanked system. Agreed approach provided in **FRA** (**Appendix 12A, Volume 6.4**).
CCC		CCC indicated that the discharge rate (equal to greenfield run-off rates) agreed with HWIDB is in line with rates requested by CCC. CCC confirmed that either of the following discharge approaches would be acceptable: • Variable peak flow control combined with long -term-storage approach to volumetric control; or • All runoff flows are attenuated to greenfield QBAR (mean annual peak runoff rate) or 2l/s/ha whichever is the greater. CCC agreed that either approach would serve to reduce flood risk downstream of the site on the basis that the site is previously developed and thus reduction to greenfield rates would provide betterment downstream	Agreed approach provided in **FRA** (**Appendix 12A, Volume 6.4**).
CCC		CCC agreed that the proposed approach to determine climate change allowance was suitable for the proposed development.	Agreed approach provided in **FRA** (**Appendix 12A, Volume 6.4**).
NCC	Email 11/01/21	<u>Flood risk</u> NCC recommended that any development considers local flood risk, proposes sustainable drainage and complies with the National Planning Policy Framework (NPPF) to avoid the increase in the risk of flooding. Any planning application should take account	Flood risk and surface water drainage is assessed in detail in the **FRA** (**Appendix 12A, Volume 6.4**). The findings of the **FRA** are cross referenced in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement**

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
		of national standards and guidance and at least one feasible proposal for the disposal of surface water drainage should be demonstrated and supported by the inclusion of appropriate information.	**Chapter 12: Hydrology, Volume 6.2**.
NCC		Works affecting flows in ordinary watercourses NCC indicated that if there are any proposed works that are likely to affect flows in an ordinary watercourse, then approval by the NCC is likely to be required. In line with good practice, NCC seeks to avoid culverting, and its consent for such works will not normally be granted except as a means of access. It should be noted that this approval is separate from planning.	The potential effect of the Proposed Development on ordinary watercourses is assessed in detail in the **FRA**. The findings of the **FRA** are cross referenced in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**.

A summary of the relevant responses received to the PEIR, together with any subsequent discussions held in relation to hydrology and confirmation of how these have been considered within the assessment to date is presented in **Table12B.3Summary of PEIR responses for Hydrology together with any subsequent engagement.**

Table12B.3 Summary of PEIR responses for Hydrology together with any subsequent engagement

Consultee	Issue raised	Response
HWIDB	Flooding Impacts As advised in the letter sent to the Planning Inspectorate (PINS) dated 20th December 2019 surface water from the Hundred of Wisbech IDB flows by gravity into the Waldersey IDB system where it is pumped into the Environment Agency's (EA) higher level River Nene. During December 2020 the Board experienced several issues during the exceptionally wet winter and some flooding within the area occurred affecting people, property, infrastructure and the wider environment. The Board are investigating several options to better manage its systems including the alleviation of flows entering its system. One way that this could be achieved is by reducing flows that discharge into the Boards system including the proposed development. The area is served by three corrugated steel culverts under the A47. The Board has raised concerns with Highways England about the capacity and structural integrity of these culverts. A Government funded grant in aid scheme channel improvement scheme which would benefit this area is reliant on action being taken by Highways England but this is understood to be currently "on hold". The failure of Highways England to act has resulted in a greater flood risk being posed by the increased development in the area and the potential failure of the culverts which would result in significant flooding in the area that would affect the proposed development site.	Comment discussed in consultation meeting on 14/12/22 (see **Table 12B.4**).
HWIDB	Water Resources The proposed development is within the driest region of the UK and is uniquely vulnerable to water shortage, resulting in serious water stress, but, as discussed above, is also subject to severe weather events.	Comment discussed in consultation meeting on 14/12/22 (see **Table 12B.4**).

Consultee	Issue raised	Response
	It is predicted that in the Water Resources East (WRE) region there will be a gap between supply and demand of up to 750 mega litres a day (ML/d) if the region continues to manage water resources in the same way. It considered that many sources are close to their abstraction limit and concern has been raised that the combination of climate change together with the significant growth and increase in population planned in the area will further exacerbate this issue thus adversely affecting ecosystems and other users reliant on these sources. With the increasing risk of drought and the surge in demand for food, energy and services that is likely in future, there is a very real risk that a lack of water could limit growth and development in the area. The proposed development will be a significant user of potable water which could be used, arguably, more appropriately. Could this use be reduced by using other sources of water supply? The detrimental impacts of flooding and water resources could be alleviated if the rain falling on the site was captured, treated at source and not discharged into the Boards District Drains. Such a “closed loop” system is not uncommon and is utilised in similar energy production facilities such a Digester Plants. Could such a system be used here?	
HWIDB	<u>Water Quality</u> Whilst the proposed development will be subject to Environmental Permitting Regulations, which are outside of the Boards control, and it is appreciated that both water resources and quality are matters for the Environment Agency (EA), the Board are concerned about the consequences, both physical and financial, of a pollution incident that effects some of the most fertile agricultural land in the area, the urban development, and aquatic environment either directly or indirectly and the implications that this could have on these. In order to reduce any detrimental impacts resulting in the deterioration in the water quality during the lifetime of the proposed development including the construction, operational and decommissioning phases, appropriate systems are installed and implemented to ensure that no building and constructional materials, foreign debris or polluting matter is discharged or becomes deposited into an open watercourse by	Comment discussed in consultation meeting on 14/12/22 (see **Table 12B.4**).

Consultee	Issue raised	Response
	any means. This may require the installation of a suitable pollution retention device or devices to contain any foreign debris or polluting matter that enter the adjacent open watercourses. The provision of suitable filter strips beside any open watercourse will be required together with the following: (ii) During the Construction and Decommissioning Phases: • Any excavated, imported or exported soils and materials are regularly tested to ensure it meets the appropriate standards. • No soils or materials, particularly those which are potentially contaminated, are placed within 20m of an open watercourse. • Any water, including groundwater, discharging into an open watercourse must meet regularly tested to ensure it meets the appropriate standards. (ii) During operation: • Any water discharging into an open watercourse must regularly tested to ensure it meets the appropriate standards. • No waste materials, particularly those which are potentially contaminated, are placed within 20m of an open watercourse.	
Natural England	"We note from Table 12.6 that The Wash Ramsar and SPA and The Wash and North Norfolk Coast SAC have been considered for hydrological impacts as they are downstream from the proposal. However, the distance is over 17km away and have therefore been scoped out with no effects predicted on these biodiversity sites. We consider the distance, in combination with robust foul and surface water drainage and pollution prevention measures, should ensure there will not be impacts to designated sites from hydrology. We welcome the measures outlined in table 12.9, to include good working practices implemented within a Construction Environmental Management Plan (CEMP), a drainage management plan, measures to prevent pollution and contaminated run off and a monitoring schedule. The Nene Washes Ramsar, SAC and SPA and Ouse Washes SPA are upstream of the development and therefore not considered an issue. Natural England concurs with these"	Noted.

Consultee	Issue raised	Response
NCC	Surface Water Drainage The County Council's Strategic Flood Risk Planning Officer confirmed that the Lead Local Flood Authority has focussed their review on the grid connection aspects of the proposal that fall within Norfolk and have made the following comments: Reviewing section 2 of the FRA which is on relevant legislation, planning policy and technical guidance, it appears the SFRA for Kings Lynn and West Norfolk, the Norfolk PFRA and the Local Flood Risk Management Strategies have not been reported on and therefore we assume they are unlikely to have been reviewed or considered in the FRA. The FRA indicates the drains in the area are within an IDB area. We note that two main drains have been identified as needing to be crossed although, as yet, there is no schedule of smaller ordinary watercourses that are in the IDB area. We note the intent for the main EfW site to have an Emergency Flood Plan for the operational phase. However, there is no mention of an Emergency Flood Plan for the temporary construction works outside of the main site, even though the temporary work will occur in areas at risk of multiple sources of flooding. All Emergency Flood Plans would need to be consistent with the requirements of ADEPT Guidance. We note that the proposed construction of the grid connection consists of a mixture of underground cables (UGC) laid by a combination of open cut trenching and HDD, along with overhead cables mounted on poles. It is proposed that HDD will be used at road crossings and two IDB ditches. However, it is not clear whether the UGC will need to cross other ordinary watercourses under IDB jurisdiction or not. Further clarification would be appropriate. The dimensions on the open cut trenches and post holes are given, however there is no information about the typical time that these groundworks would be open. Furthermore, as yet there is no information currently available on how water ingress and dewatering of the groundwater is planned to occur and where any water will be discharged to. We await further details.	The Kings Lynn and West Norfolk, NCC PFRA and Local Flood Risk Management Strategy have been considered in the **FRA** (**Appendix 12A, Volume 6.4**). The Grid Connection is now entirely underground and crosses a small number of non-IDB watercourses. These are shown on **Figure 12.3a** and **12.3b** (**Volume 6.3**). The **Outline Flood Emergency Management Plan** (**Volume 7.9**) forms part of the documents submitted with the DCO Application. The **Outline Drainage Strategy** for the Proposed Development is set out in **Appendix 12F, Volume 6.4**.

Consultee	Issue raised	Response
	We confirm that a Surface Water Management Plan and a Drainage Strategy will be required as part of a DCO submission. Building on our previous comments, this will need to include a plan for temporary dewatering discharges should any groundworks become flooded. These will need to be agreed with the appropriate regulators. The CEMP should consider the management of surface water quality management. We note that the Applicant indicated that they have consulted the Norfolk LLFA, however, this is more limited than has been conveyed in PEIR. Norfolk LLFA have reviewed their records and while they did receive a request for pre-application advice in January 2021 (FW2021_0021), a standard application form for pre- application advice (that outlines how to apply for pre-app advice and information required to support a constructive pre-app) was provided on 11 January 2021. Our records indicate that the form was not returned to Norfolk LLFA. The dialogue presented in the communication summaries within the FRA are not reflected in the emails we hold on record. Therefore, as it is not clear to us where this information has come from. Please can the Applicant provide clarification of this matter? Further guidance on the information required by the LLFA for developers can be found at https://www.norfolk.gov.uk/rubbish-recycling-and-planning/flood-and-watermanagement/information-for-developers.	
Environment Agency	<u>Flood Risk</u> We have reviewed the documents and are satisfied with the approach taken. Please note however that the information in table 6.1 of the Flood Risk Assessment states that the finished floor levels for the infrastructure will be set above the 0.1% AEP, however there is no details relating to the areas of the site not classed as essential infrastructure. The finished floor levels will be required for this too. Alternatively, the whole site could be set at the same finished floor level. As per our previous comments, we would require confirmation that the division of the site into different classifications (Essential Infrastructure/less vulnerable etc.) is acceptable. We would also suggest that access roads be set according to the 0.1% to ensure that the site can be accessed in the event of a breach.	The **FRA** (**Appendix 12A, Volume 6.4**) sets out the proposed minimum FFLs for the different flood risk vulnerability elements of the EfW CHP Facility as agreed following further consultation with the Environment Agency and CCC (see **Table 12B.4**).

Consultee	Issue raised	Response
Waldersey IDB	Flooding Impacts As advised in the letter sent to the Planning Inspectorate (PINS) dated 20th December 2019 surface water from the Hundred of Wisbech IDB flows by gravity into the Waldersey IDB system where it is pumped into the Environment Agency's (EA) higher level River Nene. During December 2021 the Board experienced several issues during the exceptionally wet winter and whilst this was largely contained the Board are investigating several options to alleviate flows entering its system. One way that this could be achieved is by reducing flows that discharge into the Boards system including this "proposed development".	See response for HWIDB (Flooding Impacts) in **Table 12B.4.**
Waldersey IDB	Water Quality It should be noted that there are several water abstraction points within the Boards catchment which are used for crop irrigation purposes on some of the most fertile agricultural land in the area. Whilst the "proposed development" will be subject to environmental permitting, which is outside of the Boards control, and it is appreciated that water quality is a matter for the EA the Board are concerned about the consequences, both physical and financial, of a pollution incident that effects the aquatic environment either directly or indirectly and the implications that this could have.	As set out in the **FRA** (**Appendix 12A, Volume 6.4**), the proposed drainage strategy utilises SuDS to provide attenuation storage and treatment before discharge into the IDB drains. The discharges will be subject to a Land Drainage Consent from the HWIDB.
Wisbech Town Council	Hydrology Confirmation is required that the finished floor levels relied upon to mitigate any impact from flooding are the same as those assessed in the landscape and visual assessment. As it stands, the NTS is not clear how much the development will need to be raised.	The **FRA** (**Appendix 12A, Volume 6.4**) sets out the proposed minimum FFLs for the different flood risk vulnerability elements of the EfW CHP Facility as agreed following further consultation with the Environment Agency and CCC. The minimum FFLs are consistent with those assessed in **Chapter 9: Landscape and Visual, Volume 6.2** and other chapters.
Wisbech Town Council	The PEIR relies upon the implementation of an appropriate Drainage Management Plan during construction to ensure that there would be no increase in flood risk downstream; however, no information is provided at this stage. It is, therefore, not possible for the reader to consider whether this would be effective or to provide any	The **Outline Drainage Strategy** for the Proposed Development is set out **Appendix 12F, Volume 6.4**.

Consultee	Issue raised	Response
	meaningful comment on the proposed strategy.	
Wisbech Town Council	The impact upon flood risk arising from the construction of the waste bunker 15m below ground level needs to be clarified. Without this clarification the full flood risk impacts and issues surrounding the development cannot be considered fully. Noting that Wisbech is generally in an area at high risk of flooding, this lack of information upfront is concerning.	The risk of groundwater flooding and groundwater uplift (floating) of the bunker is assessed in the **FRA** (**Appendix 12A, Volume 6.4**).

An overview of the key stakeholders consulted following PEIR, and a summary of the issues discussed in relation to hydrology is presented in **Table 12B.4**Table 12B.2 below.

Table 12B.4 Summary of engagement subsequent to PEIR regarding Hydrology

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
Environment Agency	Pre-application consultation virtual meeting 19/10/21	<u>Minimum FFLs for EfW CHP Facility</u> The PEIR FRA states that the finished floor levels for the infrastructure will be set above the 0.1% AEP, however there is no details relating to the areas of the site not classed as essential infrastructure. The finished floor levels will be required for this too. Alternatively, the whole site could be set at the same finished floor level. As per our previous comments, we would require confirmation that the division of the site into different classifications (Essential Infrastructure/less vulnerable etc.) is acceptable.	The minimum FFLs for EfW CHP Facility are set out in **Appendix 12A (FRA, Volume 6.4).** These were agreed with the Environment Agency as follows: • Essential infrastructure: minimum FFL 2.6mAOD (breach flood level at 1 in 1000yr plus climate change event); • Less vulnerable: minimum FFL 2.5mAOD (breach flood level at 1 in 200yr plus climate change event); and • Water compatible: no requirement for land raising. The flood risk vulnerability classification for the different elements of the proposed development were agreed on consultation with CCC (see above).
		<u>FFLs for access roads</u> The Environment Agency suggested that access roads be set according to the 0.1% to ensure that the site can be accessed in the event of a breach.	The **Emergency Flood Management Plan** (**Volume 7.9**) will form part of the documents submitted with the ES.

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
		The Environment Agency requested that an Emergency Flood Management Plan is prepared for the EfW Facility.	It was agreed with the Environment Agency that raising of the access is not required. During the design event the EfW CHP Facility and access roads are dry and that the EfW CHP Facility remains operational and there is safe access and egress to and from the site. For the residual risk event the proposed minimum FFLs would ensure the EfW CHP Facility remains dry whilst the surrounding area would be flooded including wider access roads (modelled flood depth 0.1 to 0.6m). The EfW CHP Facility would remain operational for about 11 days and beyond that the EfW CHP Facility could be shut down safely if required.
NCC	Pre-application consultation virtual meeting 01/03/22	A Surface Water Management Plan and a Drainage Strategy will be required as part of a DCO submission. Building on our previous comments, this will need to include a plan for temporary dewatering discharges should any groundworks become flooded. These will need to be agreed with the appropriate regulators. The CEMP should consider the management of surface water quality management.	Temporary groundwater dewatering from the base of the excavations is considered in **Appendix 12F (Outline Drainage Strategy, Volume 6.4)**. Surface water management measures are considered in the **Outline CEMP (Volume 7.12)**.
		SuDS strategy for Walsoken Substation. The proposed SuDS strategy should be in accordance with the 4 pillars of SuDS (Quantity (flood reduction), Quality (pollution reduction), Amenity (landscape) and Biodiversity (wildlife benefit)). Consider off-setting the small area taken up by the kiosk using for example a rain garden.	**Appendix 12F (Outline Drainage Strategy, Volume 6.4)** sets out the outline drainage strategy for managing surface runoff from the Walsoken Substation in a sustainable manner, in accordance with the requirements of the NPPF, NPS and local policy guidance. Discharges from the site will be limited to greenfield runoff rate or Q_{BAR} and will be treated using SuDS features designed to meet the pollution mitigation

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
			index. Any trees disturbed during the construction works will be replanted, and the option of including a rain garden will be considered in the detailed design phase.
		Management of runoff from Walsoken Substation (construction phase). NCC agreed with the proposed outline drainage strategy. Any discharge into non-IDB drains should be limited to greenfield runoff rate and a consent is needed from NCC for the discharge structure.	As set out in **Appendix 12F (Outline Drainage Strategy, Volume 6.4)**, any surface water discharges from the Walsoken Substation into the non-IDB drains will be limited to greenfield runoff rate or Q_{BAR} during the construction phase. As requested, a consent will be sought from NCC at the detailed drainage design stage for the construction of the discharge structure.
		Management of runoff from Walsoken Substation (operational phase). Soakaway tests should be undertaken to assess the viability of infiltration for managing surface runoff from Walsoken Substation (operational). Carry out a high-level assessment of the viability of infiltration based on BGS boreholes soil types. Identify an alternative discharge route for surface runoff from Walsoken Substation if infiltration is found to not be a viable discharge approach.	As set out in **Appendix 12F (Outline Drainage Strategy, Volume 6.4)**, it is proposed that surface water runoff from the operational substation area will be allowed to infiltrate to the ground via permeable paving. Further investigation of the viability of infiltration as a means by which surface water runoff could be discharged to ground will be undertaken prior to construction, through liaison with NCC and by undertaking a soakaway testing exercise. If infiltration into the ground is not a viable solution, then surface water flows will be attenuated in a detention basin or in an underground attenuation tank prior to discharge into a nearby ditch. Additional solids removal during construction using a silt-buster or other similar approved system could be provided if required. The discharge will be subject to a consent from the relevant drainage authority.

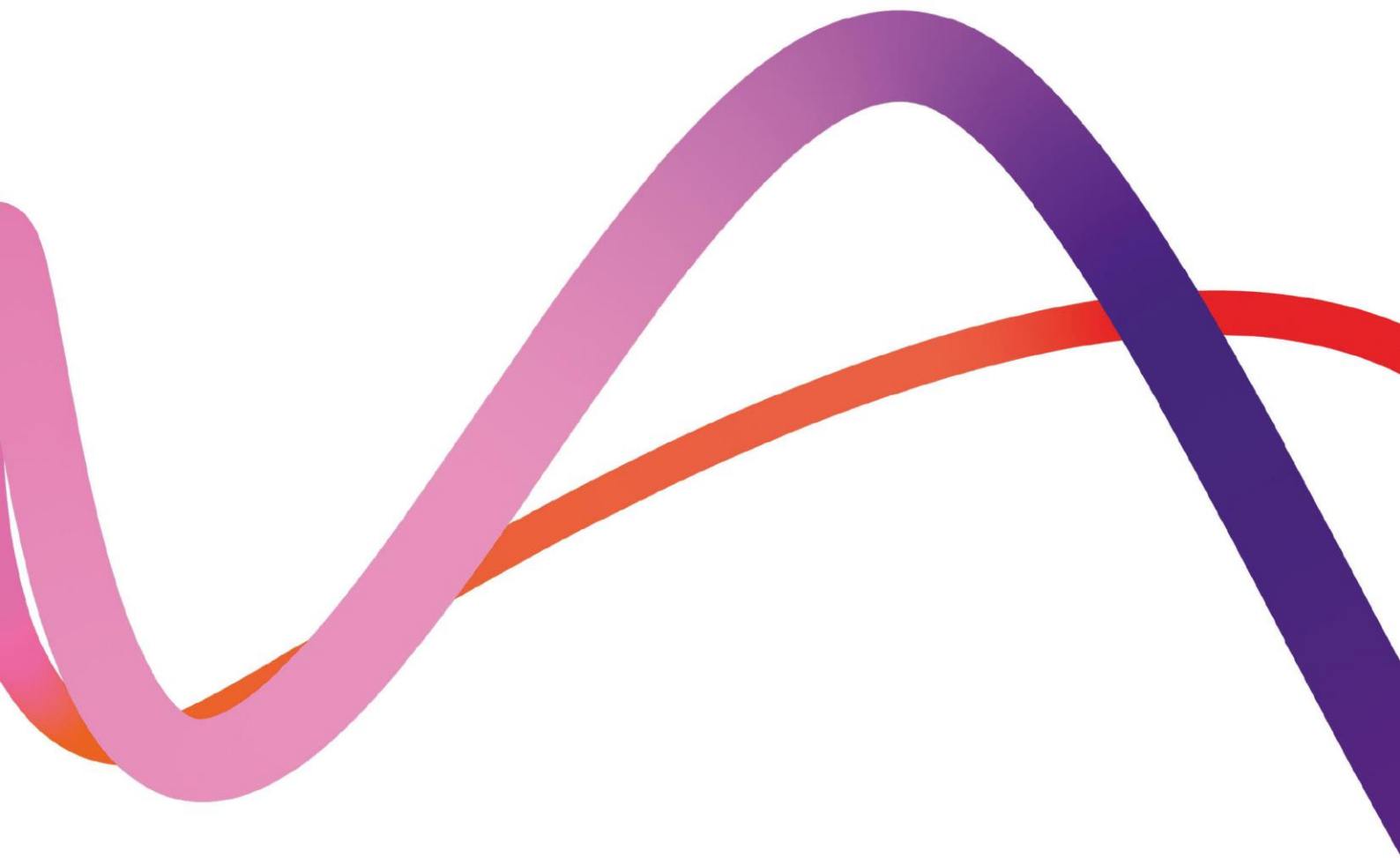
Stakeholder	Date and Form of engagement	Issue(s) raised	Response
CCC	Pre-application consultation virtual meeting 26/10/21	Flood Risk vulnerability classification for the proposed development	The flood risk vulnerability of the different elements of the proposed development as agreed with CCC are set out in **Appendix 12A (FRA, Volume 6.4**).
		Access Roads – Design and Residual flood risk differences in comparison to EfW CCC raised questions relating to site access and egress during residual flood events. CCC requested that that an Emergency Flood Management Plan is prepared for the EfW Facility.	The **Outline Flood Emergency Management Plan** (**Volume 7.9**) forms part of the documents submitted as part of the DCO Application.
		Outline Surface Water Drainage strategy For the operational phase, runoff (along with spent fire water) will be attenuated in underground tanks (due to spatial constraints on site) and treated in SuDS before discharge at greenfield runoff rate into the HWIDB drains. CCC inquired whether the proposed finished flood levels (FFLs) would allow discharge by gravity, rather than by pumping. CCC highlighted the importance of using source control measures at the EfW CHP Facility Site and appropriate maintenance of the SuDS and oil interceptors. CCC requested that the drainage modelling includes a pump failure scenario.	The **Outline Drainage Strategy** for the proposed development is provided in **Appendix 12F, Volume 6.4** . A gravity solution and pump failure scenario were assessed as part of the drainage strategy. CCC agreed with the proposed source control drainage features considered in the EfW CHP Facility design (e.g., permeable paving in car park and area surrounding switching compound, rainwater harvesting and green roof for weighbridge).
KLIDB	Pre-application consultation virtual meeting 26/11/21	Stand-off distance The KLIDB confirmed during the consultation that works within 9m of the brink of the KLIDB drains required prior consent from KLIDB (Byelaw 10). KLIDB suggested that the standoff distance could potentially be reduced from 9m to 5m, depending on the specific drain. Factors considered by KLIDB would include: the width of the drain; any existing stability issues; maintenance schedule for the drain; and proposed depth of the cable. KLIDB also indicated that if the cable is closer than 5m then strike plates should be used.	The stand-off distance from KLIDB drains is considered in **Section 12.7** (Embedded environmental measures) of **Environmental Statement Chapter 12: Hydrology, Volume 6.2**. The agreed minimum stand-off distance from the edge of the HWIDB adopted drains is 9m. A Land Drainage Consent would be sought from KLIDB for any construction works or permanent development within the 9m IDB byelaw distances.

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
		Crossing of KLIDB drains The proposed Grid Connection route crosses three KLIDB, which are currently culverted under the A47. KLIDB confirmed that, under byelaw 10, a consent is required for any proposed crossings of KLIDB drains. KLIDB indicated that where the cable is to be placed above the culvert, it must comply with a minimum depth above the culvert. KLIDB indicated that there is a small possibility that the cable may be required to go underneath of the culverts to account for potential culvert replacement and to accommodate higher flows due to climate change.	The crossing of KLIDB drains is considered in **Section 12.7** (Embedded environmental measures) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**. On a subsequent consultation meeting with National Highways and KLIDB it was agreed that the cable would be placed above the culverts using an open cut installation method. Strike plates will be used where a minimum 0.9m cover depth is not possible at the crossings.
		Crossing of Ordinary Watercourses The KLIDB highlighted that the crossing of any ordinary watercourses should be discussed with Norfolk County Council, as the Lead Local Flood Authority (LLFA).	This is considered in **Section 12.9** (Environmental assessment of hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**. There are up to 5 crossings of non-IDB drains which are culverted beneath the A47.
		Walsoken substation – surface water drainage strategy Consent would be required from the KLIDB for any discharge of surface water runoff into their drains. The KLIDB also noted that the LLFA should be consulted on the creation of impermeable surfaces at the substation site. The KLIDB will follow the advice of the LLFA on the proposed surface water drainage for the substation site.	The **Outline Drainage Strategy** for the Walsoken substation is provided in **Appendix 12F, Volume 6.4..** This follows advice from the LLFA (NCC).
HWIDB	Pre-application consultation virtual meeting 14/12/2021	PEIR comment on surface water discharge off-site . (See **Table 12B.3**)	The **Outline Drainage Strategy** is provided as **Appendix 12F, Volume 6.4**. As agreed with the HWIDB, surface water discharges from the EfW CHP Facility into the IDB network will be limited to greenfield runoff rate. In addition, source control features such as permeable paving, green roofs and rainwater harvesting have been

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
			considered in the design of the EfW CHP Facility. will be included in the final design.
		PEIR comment on A47 Culverts (See **Table 12B.3**) An improvement scheme organised by National Highways is currently on hold.	Noted. The matter has been discussed with National Highways, who ultimately have the responsibility to replace the culverts. Where available, the culvert design details have been provided by National Highways.
		PEIR comment on water resources (See **Table 12B.3**)	The potential impact of the operational EfW CHP Facility on water resources Receptors is provided in **Section 12.9** (Environmental assessment of Hydrology effects) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**. . It is noted that water demand of the EfW CHP Facility appears high because it allows for the full CHP steam supply with zero condensate return as a worst-case scenario. In typical operating conditions the water demand is significantly lower and there is limited demand for reuse of surface water runoff in the process which would be difficult to use because of its quality. In addition, source control features such as permeable paving, rainwater harvesting and green/brown roof for the weighbridge and part of the administration building have been considered in the design of the EfW CHP Facility as set out in **FRA** (**Appendix 12A, Volume 6.4**).

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
		PEIR comment on water quality (**See Table 12B.3**)	A Materials Management Plan and Construction Environmental Management Plan are included in the application (**Outline CEMP, Volume 7.12**) which will address the HWIDB comments on soil testing, water discharge testing and stand-off distance from HWIBD drains for soil stockpiles.
		Stand-off distances HWIDB confirmed that a consent is required for works within 9m of the bank top of any IDB maintained watercourse	The stand-off distance from HWIDB drains is considered in **Section 12.7** (Embedded environmental measures) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**. The agreed minimum stand-off distance from the edge of the HWIDB adopted drains is: 6m for EfW CHP Facility Site 9m for TCC, Access Improvements, Water Connections and Grid Connection (where possible) A Land Drainage Consent would be sought from HWIDB for any construction works or permanent development within the 9m IDB byelaw distances.
		Culvert crossings The HWIDB asked about the proposed depth of the cable on the A47 verge. The HWIDB indicated that the verge of the A47 is used for maintenance works and asked what activities can be undertaken over the cable (e.g., works using a tractor).	The depth of the cable is considered in **Section 12.7** (Embedded environmental measures) of the **Environmental Statement Chapter 12: Hydrology, Volume 6.2**. It was agreed with the HWIDB that the cable will be at minimum depth of 0.9m below ground level. All permanent cable crossings of the culverted drains beneath the A47 will be placed above the culverts using open cut installation method. Strike plates will be used where a minimum 0.9m cover depth is not possible at the crossings.

Stakeholder	Date and Form of engagement	Issue(s) raised	Response
			The proposed cable design complies with UK Power Networks (UKPN) Engineering Construction Standard ECS 02-0019 Installation of Underground Cables – LV to 132kV (**Chapter 3: Description of the Proposed Development, Volume 6.2**).
		New Bridge Lane Access Improvements The extension or replacement of the culvert along HWIDB drain point 31 to the west of the EfW Facility, is proposed as part of the access improvement works. The HWIDB indicated that the existing culvert is 1.2m in diameter, 12 to 13m in length and is at an angle beneath New Bridge Lane. HWIDB indicate that their preference is to have the culvert replaced with a bigger culvert. As part of works HWIDB also recommended that large stones are considered for bank erosion protection.	Watercourse crossings as part of the Access Improvements works are considered in **Section 12.**7 (Embedded environmental measures) **Environmental Statement Chapter 12: Hydrology, Volume 6.2**. It was agreed with HWIDB that the culvert at HWIDB drain point 31 will be replaced with a bigger culvert.



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Environmental Statement

Appendix 12C: Site Visit Photos (EfW CHP Facility Site)

Regulation reference: The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 Regulation 5(2)(a)

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Appendix 12C
Site Visit Photos (EfW CHP Facility Site)

A visit to the EfW CHP Facility Site was undertaken on 19 October 2020, in order to assess the hydrological characteristics of the Energy from Waste (EfW) Combined Heat and Power (CHP) Facility Site, with a focus on the Hundred of Wisbech Internal Drainage Board (HWIDB) drains.

Table 12C.1 Site visit photos (EfW CHP Facility Site)

Photo	NGR	Description *
	TF 45681 07989	**View of IDB adopted drain at the northern edge of the EfW CHP Facility (between nodes 34 and 47). Image captured from the culverted section on northeast corner of the EfW CHP Facility, facing north-west.** The drain flows to the east on the northern edge of the EfW CHP Facility before turning south along Algores Way. This ditch is open except for short section on northeast corner of the EfW CHP Facility to allow access to the existing waste transferring site from Algores Way. The brink of the drain appears to be regularly mowed, and stretches back approximately 5m from the drain brink, with the exception of a hardstanding parking area, along the whole length of the drain. At the brink, the bank top width of the channel is approximately 7m wide. There was limited flow in the drain. Large pieces of litter were visible in parts of the drain.

TF 45455 07895

View of IDB adopted drain (facing East), which bisects the EfW CHP Facility, (between nodes 33 and 45). Image captured from the culverted section, which provides vehicular access between the north and south sections of the site. Note the DFDS Logistics Warehouse in the distance.

The drain flows to the east across the centre of the EfW CHP Facility Site before turning south at the eastern Site boundary.

The drain is open but is overgrown with vegetation. The drain contained water but there was no/limited flow.

This drain includes a separation dam (structure visible on the photo), that controls flows within the drain to manage water levels downstream.

TF 45425 07733

View of IDB adopted drain, which flows along the southern edge of New Bridge Lane (between nodes 43 and 44). Image captured from the culvert, which provides vehicular access to the field to the south, facing West.

The drain flows to the east, remaining parallel with New Bridge Lane, until it reaches the A47 to the southeast.

The drain is open, with a few culverted sections, which provide access to residential properties. The grass appears to be more regularly mowed on the

		northern bank, with thicker vegetation acting as a buffer strip on the southern bank. The drain contained water but there was limited flow.
	TF 45508 07693	**View of IDB adopted drain, which drains south, along the eastern boundary (between nodes 45 and 48). Image captured from New Bridge Lane, facing North.** The drain flows to the south, through an area known as Great Bolness Field, towards New Bridge Lane, where it bends east and runs parallel with the road. The drain is open for most of its length including along New Bridge Lane. The drain contained water. The drain is up to 9m wide, from brink to brink. The drain is bordered to the west by a grass strip, which separates the drain from mature deciduous trees. To the east is more overgrown with some small, scattered shrubs. At certain times of year reeds grow also in the east of the drain.

TF 45557 07662

View of IDB adopted drain, which drains east, along the north edge of New Bridge Lane (between nodes 48 and 49), facing east.

The drain flows to the east parallel with New Bridge Lane. The drain is open along its length, before entering a short culvert (~15m) at node 49. The drain is approximately 10m wide.

The grass appears to be more regularly mowed on the southern bank, with thicker vegetation and reeds on the northern bank with Great Algores field.

The drain contained water but there was limited flow.

TF 45706 07564

View of drain that runs to the south of the DFDS Logistics warehouse, along the north edge of New Bridge Lane (between nodes 49 and 50), facing east.

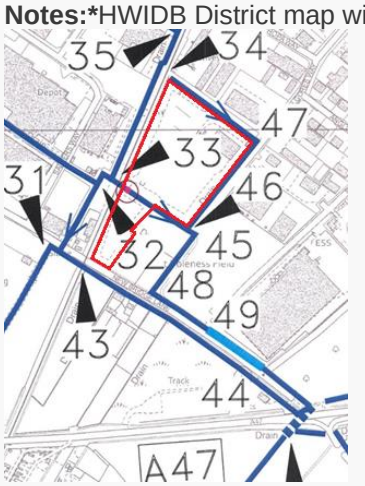
The drain flows to the east on the northern edge of along Algores Way. The drain is open except for an initial culverted section (~15m). The drain is not adopted by the IDB.

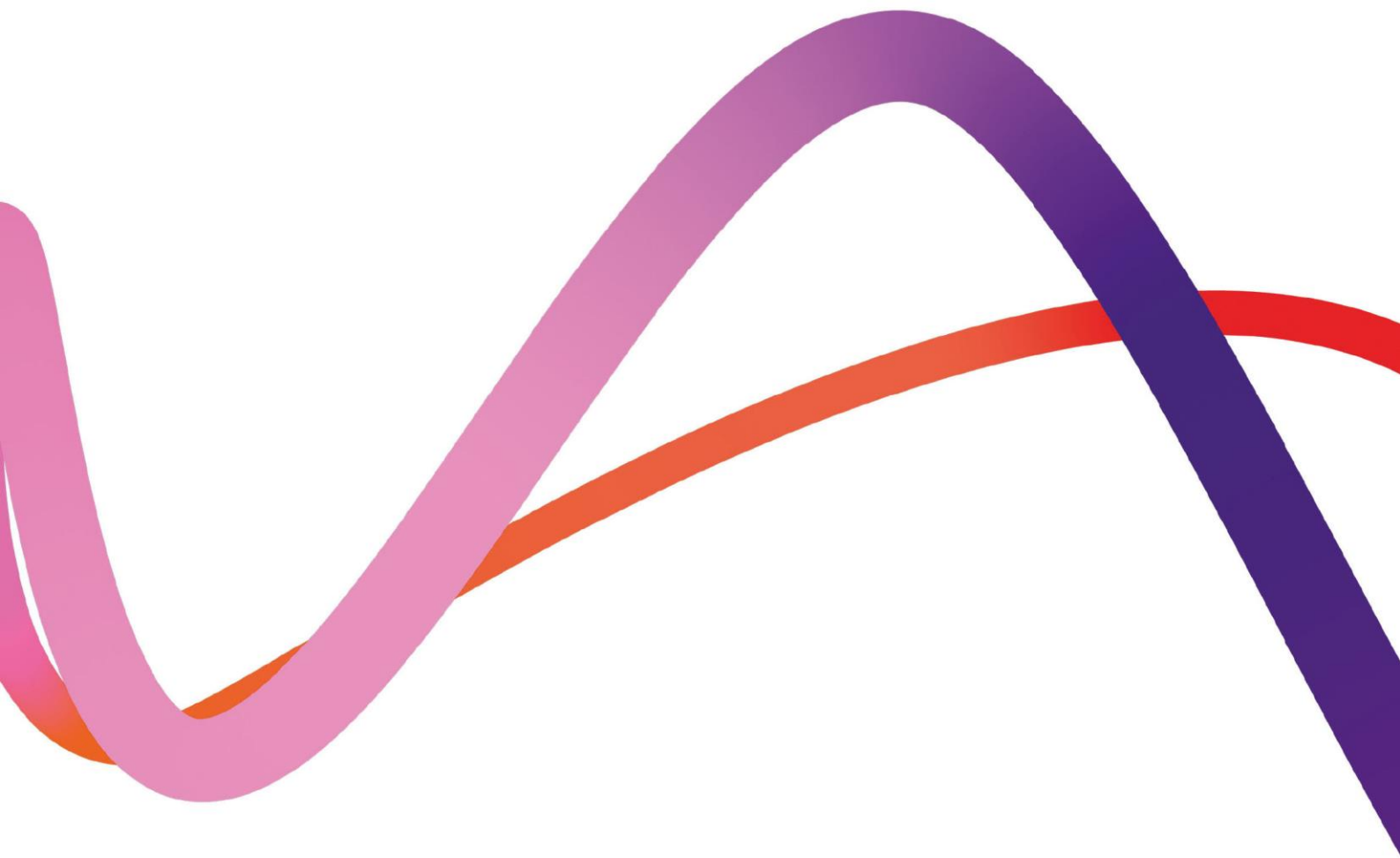
The drain is more heavily engineered than the surrounding drains. The banks have gabion cages piles along each side. The channel between the cages is approximately 3.5m wide. The drain contained water but there was no/limited flow.

TF 45497 07928

General view of current waste recycling and transfer station (view northeast from the northwest corner towards the weighbridge, site cabins and Waste Reception Warehouse).

Notes:*HWIDB District map with numbered drains





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Environmental Statement Chapter 12 Hydrology Appendix 12D: IDB drainage plans

Regulation reference: The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 Regulation 5(2)(a)

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Appendix 12D
Hundred of Wisbech IDB and King's Lynn IDB Drainage Maps

Figure 12D.1 Hundred of Wisbech Internal Drainage Board District Plan

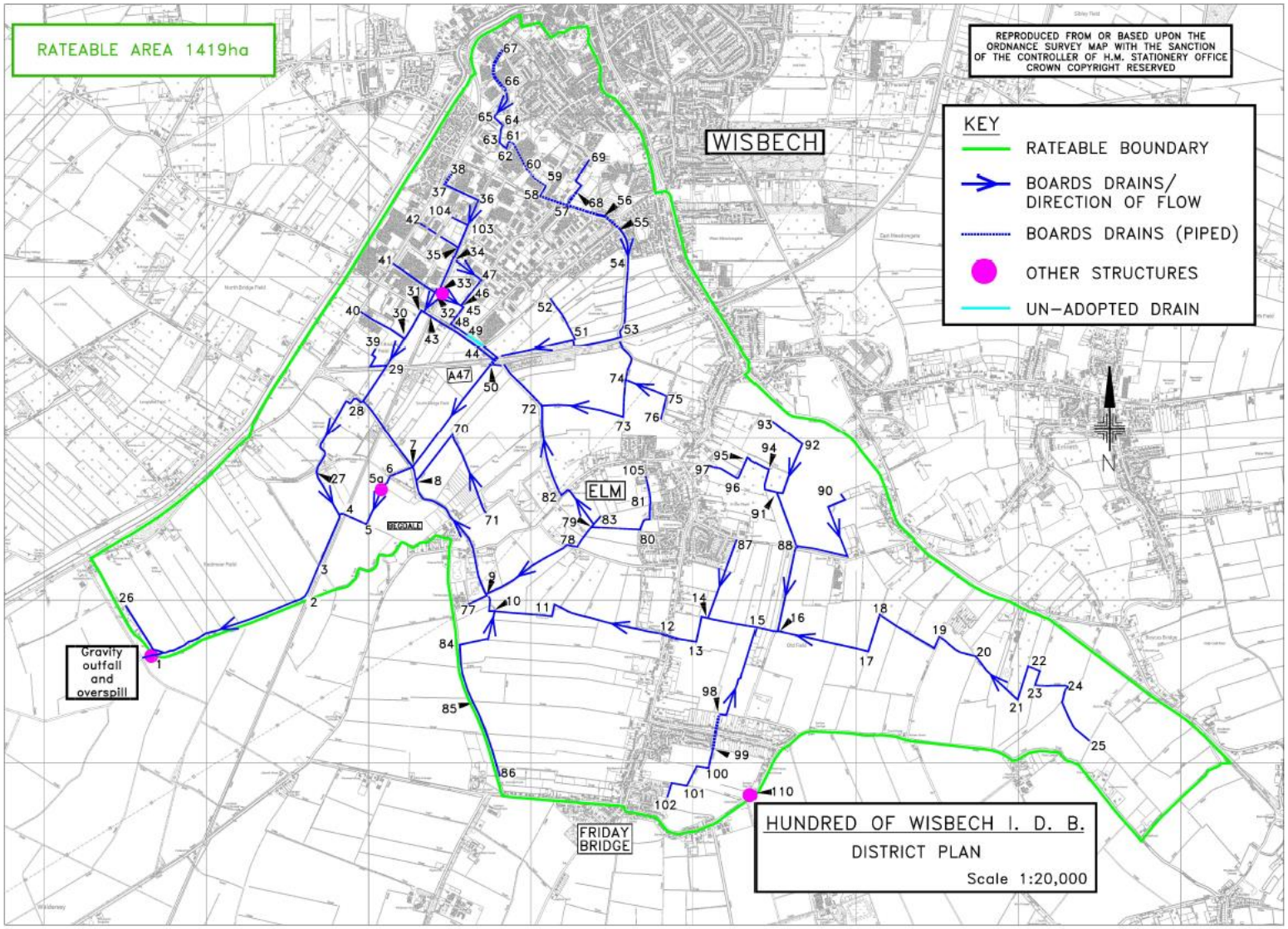

Figure 12D.2 King's Lynn Internal Drainage Board District Plan

Sheet List Table	
Sheet Number	**Sheet Title**
CMT015G	Wiggenhall St Germans
CMT016G	Fitton Road Area
CMT017P	Waltham Farm
CMT018P	Mary Magdalen
CMT019P	Magdalen
CMT037G	Lighthouse
CMT038G	Main Sluice
CMT039G	Chalk Lane
CMT040P	Ingleborough
CMT126G	Searles
CMT127G	Heacham North
CMT127G	Heacham South
CMT128P	Wolferton
CMT129P	North Wootton
CMT131G	South Wootton
CMT132P	North Lynn
CMT133G	Black drain - Bawsey drain
CMT134G	Gaywood East
CMT134G	Gaywood West
CMT135P	Middleton Pierrepoint East
CMT135P	Middleton Pierrepoint West
CMT136P	Middleton Level
CMT137P	Mill Basin
CMT138P	Green Bank North
CMT138P	Green Bank South
CMT139G	Billy Kerkham
CMT140G	West Lynn Catchment
CMT141G	Cut Bridge
CMT142G	Merries Farm
CMT143G	Knowles Catchment
CMT144P	Eau Brink
CMT145P	Islington East
CMT145P	Islington South
CMT145P	Islington North
CMT146P	Reeds Drain catchment
CMT191P	Church Farm
CMT211G	Babingley East
CMT211G	Babingley West
Index	Index

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King's Lynn Drainage Board

LEGEND

- Boards Boundary
- Hydrological catchment
- IDB Watercourses
- Pumping Station
- Water Control Structure
- Sluice

KEY MAP

SCALE	SHEET NUMBER
BEST FIT	Index
PLOT DATE	
23/10/2014	

FILE NAME

KLIDB_webmap2013

Figure 12D.3 King's Lynn Internal Drainage Board Islington North Drain Catchment

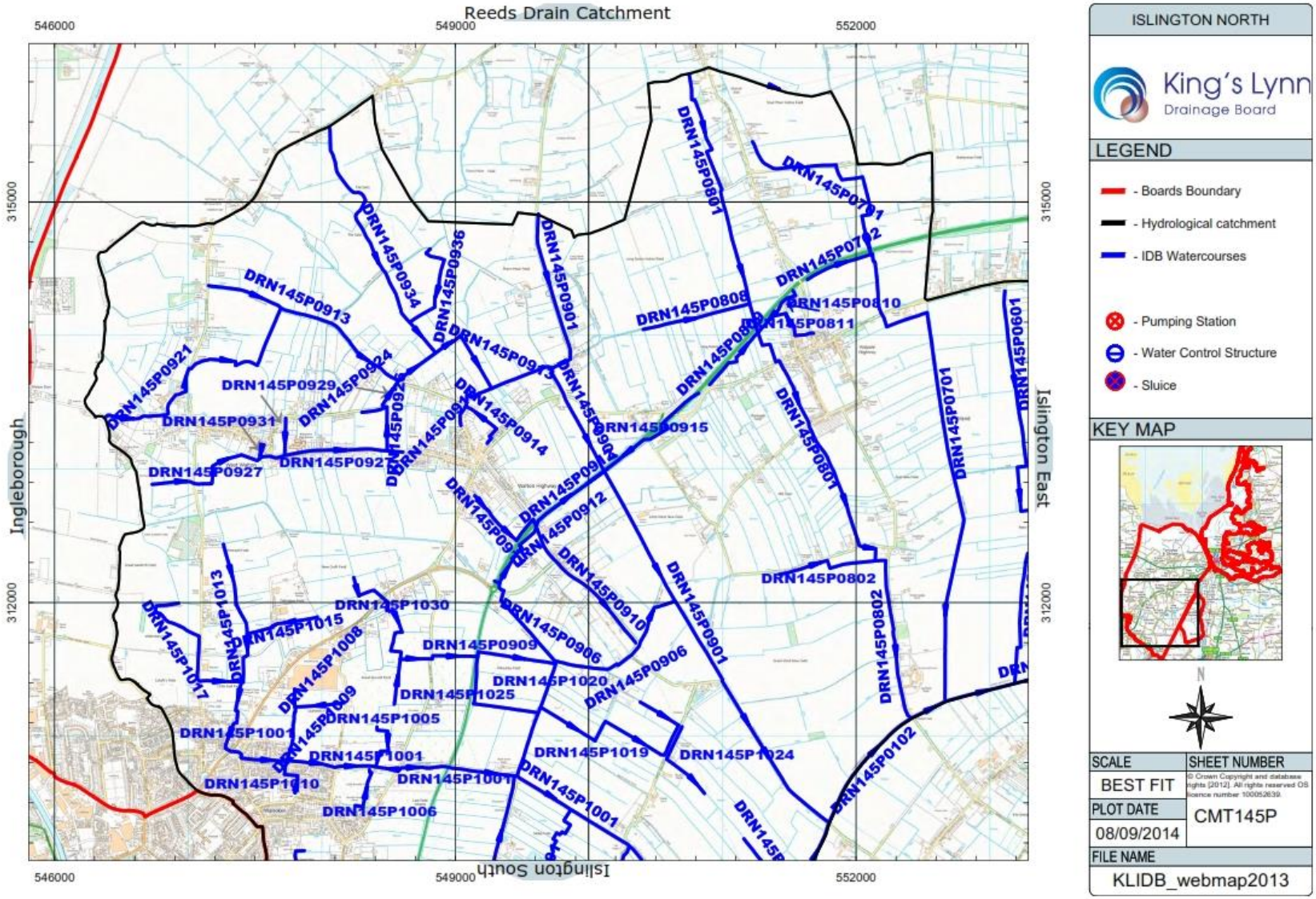


Figure 12D.4 King's Lynn Internal Drainage Board Islington North Drain Catchment

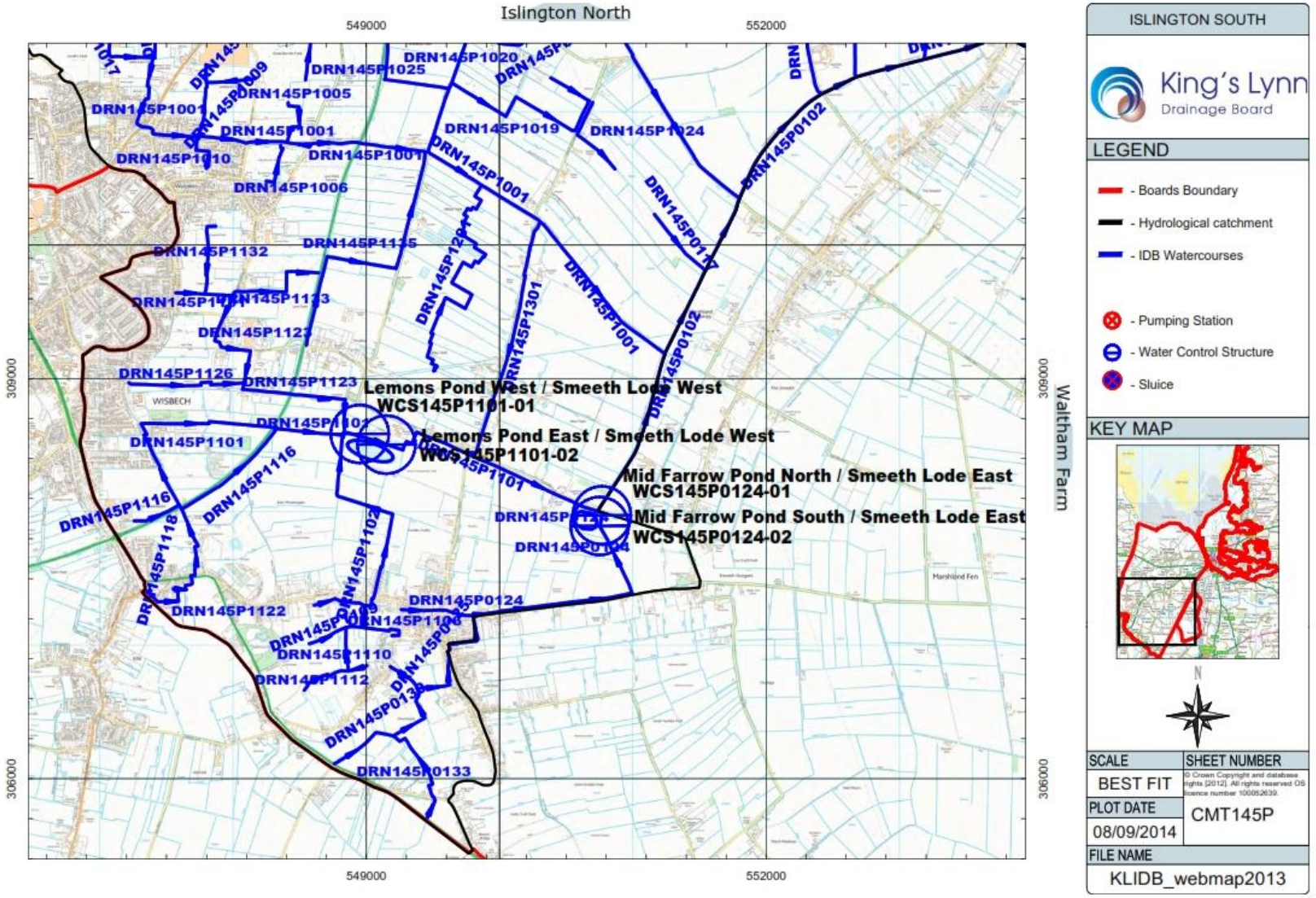
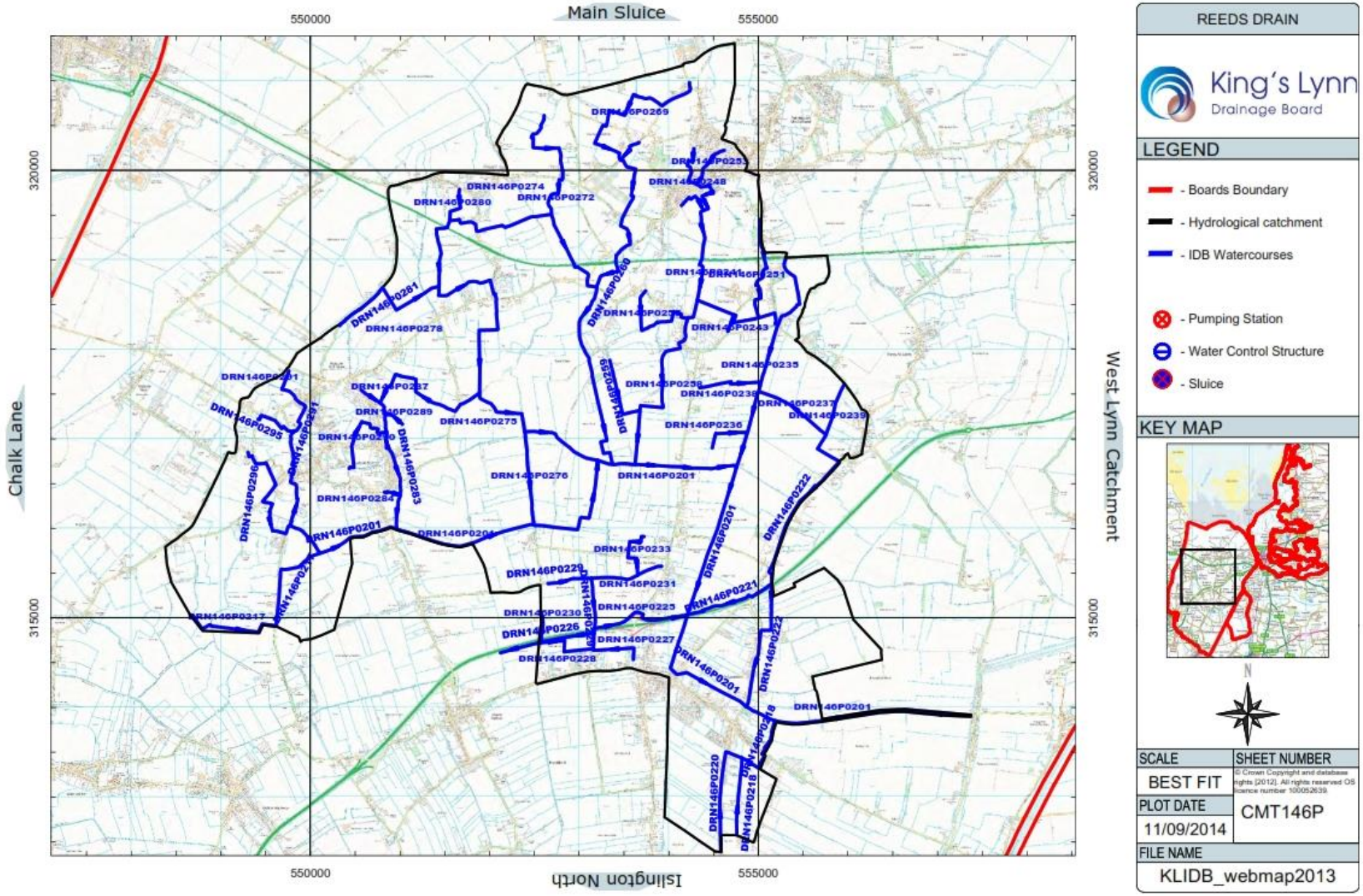
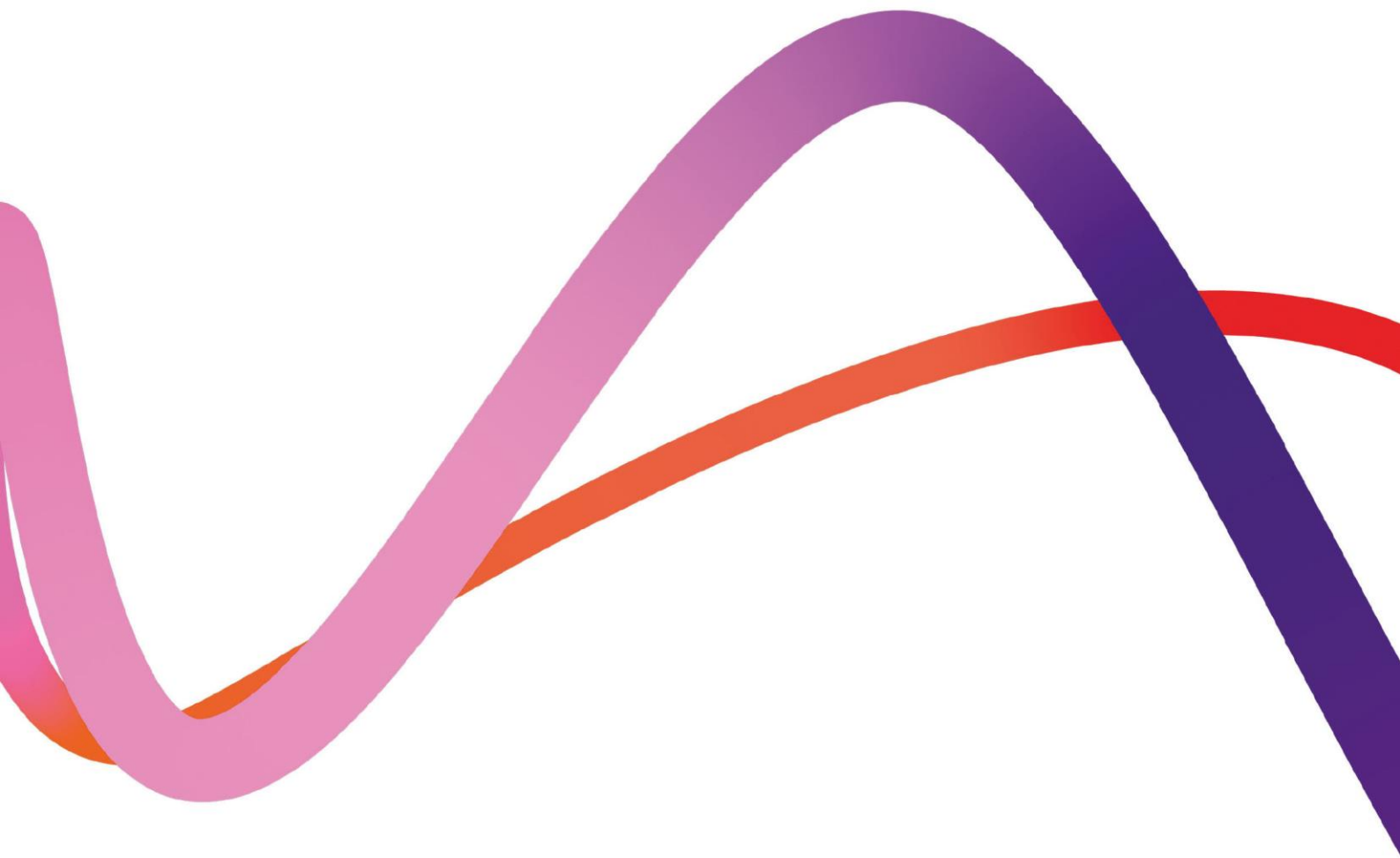


Figure 12D.5 King's Lynn Internal Drainage Board Reeds Drain Catchment





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Environmental Statement Chapter 12 Hydrology Appendix 12E: Discharge consents

Regulation reference: The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 Regulation 5(2)(a)

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Appendix 12E
Discharge consents

1.1.1 Details of discharge consents near the Proposed Development are provided in **Tables 12E.1 Discharge consents within the study area of the EfW CHP Facility Site, CHP Connection, TCC, Access Improvements and Water Connections** and **12E.2 Discharge consents within the study area of the Grid Connection Corridor** (data provided by the Environment Agency).

Table 12E.1 Discharge consents within the study area of the EfW CHP Facility site, CHP Connection, TCC, Access Improvements and Water Connections

Consent number	Receiving Tributary	NGR	Discharge purpose
AENNF13000	Tributary of River Nene	TF4609008550	Pumping Station on Sewerage Network (water company)
AW5NF1052	River Nene	TF4636008730	Storm Tank/CSO on Sewerage Network (water company)
AWNNF02304	River Nene	TF4542208053	Pumping Station on Sewerage Network (water company)
AWNNF02307	River Nene	TF4555008460	Storm Tank/CSO on Sewerage Network (water company)
EPRDB3892WG	Unnamed Drain leading to River Nene	TF4411106862	Waste Collection/Treatment/Disposal/Materials Recovery
NPSWQD005151	Tributary of River Nene	TF4530007810	Waste Collection/Treatment/Disposal/Materials Recovery
PRNNF00712	Unnamed Dyke	TF4569007980	Pumping Station on Sewerage Network (water company)
PRNNF03957	River Nene	TF4570009350	Making of Food Products/Dairy
PRNNF09010	Fen Drain	TF4581008870	Making of Glass/Ceramics/Cement/Cutting Stone
PRNNF12940	Tributary of River Nene	TF4564007930	Waste Collection/Treatment/Disposal/Materials Recovery

Table 12E.2 Discharge consents within the study area of the Grid Connection Corridor

Consent number	Receiving Tributary	NGR	Discharge purpose
AWNNF02304	River Nene	TF4542208053	Pumping Station on Sewerage Network (water company)

Consent number	Receiving Tributary	NGR	Discharge purpose
AWNNF02307	River Nene	TF4555008460	Storm Tank/CSO on Sewerage Network (water company)
EPRDB3892WG	Unnamed Drain leading to River Nene	TF4411106862	Waste Collection/Treatment/Disposal/Materials Recovery
NPSWQD005151	Tributary of River Nene	TF4530007810	Waste Collection/Treatment/Disposal/Materials Recovery
PRCNF14590	Tributary of the Smeeth Lode	TF4809609399	WwTW (not water co) (not STP at a private premises)
PRCNF14590	Tributary of the Smeeth Lode	TF4809609399	WwTW (not water co) (not STP at a private premises)
PRNNF00712	Unnamed Dyke	TF4569007980	Pumping Station on Sewerage Network (water company)
PRNNF12940	Tributary of River Nene	TF4564007930	Waste Collection/Treatment/Disposal/Materials Recovery