

Cambridge Waste Water Treatment Plant Relocation Project



Draft Outline Code of Construction Practice:
Part B Site Specific Measures
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1 Introduction

- 1.1.1 The proposed Cambridge Waste Water Treatment Plant Relocation Project (CWWTPRP) (hereafter called the Proposed Development) is a Nationally Significant Infrastructure Project and Anglian Water Services Ltd, herein referred to as Anglian Water Services, intends to submit a Development Consent Order (DCO) application to the Planning Inspectorate under the Planning Act 2008; it is a statutory instrument which defines the terms under which development consent for a project is granted.
- 1.1.2 This draft outline draft Code of Construction Practice (CoCP) is intended to be an overarching document which sets out the measures that Anglian Water Services proposes, at this stage of the CWWTPRP, to manage, mitigate and monitor potential impacts during the construction phase of the development.
- 1.1.3 The purpose of the CoCP is essentially twofold:
- To provide effective planning, management and controls during the construction period with the aim of controlling potential impacts on the local community along with the natural and historic environments;
 - To set out a framework for engagement with the local community and their representatives throughout the construction period.
- 1.1.4 The CoCP comprises 2 parts, Part A: General requirements which sets out the measures which are applicable project wide and Part B site-specific measures. The measures in Part B supplement and refine the general requirements in Part A. The need for site specific measures in certain locations is due to a number of varying factors, including but not limited to, the presence of sensitive receptors which require specific mitigation measures and the need for specific construction activities or construction methodologies not widely used across the rest of the Project.
- 1.1.5 The CoCP is considered a 'living' document which will continue to be developed during the Environmental Impact Assessment (EIA) process, further to continued stakeholder and community engagement, following the submission of the DCO application and during the examination period. Compliance with the CoCP will be secured through a requirement of the DCO.
- 1.1.6 For the purpose of the CoCP, the term 'construction' includes all site preparation works, engineering and construction activities associated with the construction of the scheme including deliveries and waste removal. Wet and dry commissioning of the new infrastructure also falls within the remit of this document. The only decommissioning activities within its scope, however, relate to the activities required to take the existing Cambridge Waste Water Treatment Plant (WWTP) and Waterbeach Waste Water Recycling Centre (WRC) on Bannold Drove out of service and to rescind the associated Environment Agency Permits. Demolition is not included.

- 1.1.7 Details of the Proposed Development, construction activities including the overall construction programme are set out within the Preliminary Environmental Impact Report (PEIR) and not therefore repeated in the CoCP.
- 1.1.8 Part B of the CoCP is divided into the following sections based upon different works areas identified on the plans within the PEIR;
- Treated effluent pipeline and outfall to the River Cam
 - Transfer tunnel
 - Proposed Waste Water Treatment Plant (WWTP)
 - Waterbeach pipeline
 - Existing Cambridge Waste Water Treatment Plant
- 1.1.9 Each section follows the same format for ease of reference. It provides further details of the proposed site-specific measures under a set of standard headings, based upon the topic areas covered within Part A of the CoCP. Where no additional site-specific measures or deviations from Part A have been identified or are proposed, it notes that the general mitigation measures set out therein are applicable.

2 Site Specific Measures

2.1 Treated effluent pipeline and outfall to the River Cam

Topic Area		Site Specific Measures
Site Set Up and General Arrangements	Set up, security and safety	Within the working area the construction methodology will be planned to avoid lifting over the river as far as is practical. If this is not possible, controls will be put in place during the lifting operation to protect users of the river, whilst maintaining navigation.
		Part A measures refer.
	Site lighting	Temporary lighting will be minimised as far as is practicable. It will not be used any longer than required.
	Working Hours	Core working hours for winter and summer will be complied with.
	Community engagement	Whilst it will be narrowed, the River Cam will remain navigable to all permitted users throughout the construction period. Works will be phased and managed to minimise the impact of construction on specific events i.e. the working area will be reduced to increase the usable river width in accordance with the rowing calendar. This will be discussed and agreed with stakeholders including event organisers as part of the community and stakeholder engagement strategy for the Project detailed in Part A of the CoCP.
		Appropriate signage will be displayed on the river to inform river users of the proposed construction works.
Ecology and nature conservation		A minimum buffer of 10 metres will be maintained between the outfall construction compound and the ditches located adjacent to the riverbank.

Topic Area	Site Specific Measures
	Water voles have been identified along the banks of the River Cam. Appropriate mitigation measures will be put in place prior to construction commencing and a Protected Species License obtained.
Historic Environment	No works will be undertaken within 50 metres of the moated site at Biggin Abbey.
Land Quality	Land drainage will be appropriately reinstated once the pipeline has been installed.
	Part A measures refer.
Water Quality	Silt laden water will not be discharged into the River Cam or the adjacent ditch.
	A license for the River Works will be obtained from the Environment Agency prior to commencement. Construction works will thereafter be carried out in accordance with the license requirements.
	Part A measures refer.
Transport and access	It is proposed to temporarily stop up footpath 85/6 whilst construction works take place. Footpath 85/8 will be temporarily diverted to ensure that a useable route is maintained. The current proposal is to divert the path along the field boundary to the north of A14 and implement a four-gate system to divert the footpath away from the river and back toward the river.
	It is proposed to install the pipeline to the outfall via open cut techniques. Traffic management measures will be put in place along Horningsea Road when this is undertaken. These will be agreed with Cambridgeshire County Council. Liaison will take place with the local community prior to the works being carried out in accordance with

Topic Area	Site Specific Measures
	the Community Liaison Plan which will be produced as outlined in Part A of the CoCP.
	Access to the working area for the pipeline and outfall will be via the main site access road and a dedicated plant crossing point installed which will be appropriately controlled.
	Part A measures refer.
Noise and Vibration	A piling method statement will be prepared before any working in the river commence. This will be agreed with the Environment Agency and other stakeholders including Natural England. The method statement will specify the type of piling technique proposed, the rational for this, the timing of the works and mitigation measures.
	Part A measures refer.
Air Quality	Part A measures refer.
Waste Management	Part A measures refer.

2.2 Transfer Tunnel

Topic Area		Site Specific Measure
Site Set Up and General Arrangements	Set up, security and safety	Access to the working areas around each shaft will be tightly controlled to ensure that no unauthorised access takes place. CCTV will be installed, and the compound patrolled regularly by security personnel.
		Anglian Water Services will require that specific measures are put in place during the construction of the transfer tunnels in line with its standard guidance in respect of 'confined spaces working'. This will include an initial risk assessment to identify safe working practices including appropriate emergency response procedures along with the monitoring of air quality. A 'Permit to Work' system in line with HSE requirements will also be put in place. Close liaison with the emergency services will take place before the works commence on site.
		Part A measures refer.
	Site lighting	Temporary lighting will be required around the shafts. The hours which this lighting will need to operate will reflect the activities being carried at the shaft including periods of continuous working where required.
		Part A measures refer.
	Working Hours	Core working hours, winter and summer will be complied with. There will also be periods of continuous working at shafts with the exception of shaft 4.
		Shaft 4 will be used for the removal of tunnelling machinery only. This will be done in accordance with the core working hours.
	Community engagement	Part A measures refer.
Ecology and nature conservation		Part A measures refer.

Topic Area	Site Specific Measure
Historic Environment	Part A measures refer.
Land Quality	Part A measures refer.
Water Quality	Dewatering of the tunnel shafts will be required. All necessary consents and permits will be obtained before construction works associated with the tunnels and shafts commence.
	Part A measures refer.
Transport and access	Access will be as identified in the CTMP.
	Deliveries to shaft 4 will be timed in accordance with the limitations set out below under Noise and Vibration. Access to the shaft will be via the new temporary access road which will be installed for construction works and not via the existing access road to Poplar Hall Farm.
Noise and Vibration	The Environment Impact Assessment process will identify the site-specific measures required to minimise impacts upon local receptors.
	Part A measures refer.
Air Quality	Stockpiles associated with shaft 4 will be sealed and dust controlled.
	Part A measures refer.
Waste Management	Part A measures refer.

2.3 Proposed Waste Water Treatment Plant (WWTP)

Topic Area		Site Specific Measure
Site Set Up and General Arrangements	Set up, security and safety	The site of the proposed WWTP will be secured to prevent unauthorised access. The site security measures will be reviewed with the Police before works start on site. It is currently proposed that there will be a 24/7 security presence on site once the enabling works have been completed and the main site working area established. All site entrances/exits will be barrier-controlled and a security guard present. CCTV will be installed with views of the internal site and perimeter. This will be monitored 24/7. The Construction Project Director will be contacted if an intruder is identified.
		Part A measures refer.
	Site lighting	Part A measures refer.
	Working Hours	Core working hours, winter and summer, very special circumstances and out of hours working will be undertaken.
	Community engagement	Part A measures refer.
Ecology and nature conservation		Part A measures refer.
Historic Environment		Part A measures refer.
Land Quality		Part A measures refer.
Water Quality		Site specific drainage measures for the construction phase will be incorporated into the CEMP. This will include the identification of measures to manage any potential for flooding and the potential for contamination. These measures may include temporary Sustainable Drainage Systems (SuDS) or conventional drainage to contain surface water and silt during the construction of the proposed WWTP. It will also reflect any mitigation measures identified through the EIA process.

Topic Area	Site Specific Measure
	Any further site-specific measures will be identified in the Commissioning Plan.
	Part A measures refer
Transport and access	Access will be as identified in the CTMP. When construction works start, the proposed WWTP site will be accessed for an initial period via Horningsea Road and Lower Fen Drove Way whilst the new access road is constructed as part of the enabling phase. Once this has been constructed, then the site will be accessed via the new road.
	Part A measures refers.
Noise and Vibration	Part A measures refer.
Air Quality	As set out in CoCP Part A, a Commissioning Plan will be prepared. To minimise odour during the commissioning process odour ducting and odour treatment will be put in place before the commissioning process commences. Any seed sludge required for the aeration stage or digesters will be delivered in sealed articulated tankers and pumped into the tanks.
	Part A measures refer.
Waste Management	Part A measures refer.

2.4 Waterbeach Pipeline

Topic Area		Site Specific Measure
Site Set Up and General Arrangements	Site set up, security and safety	Remote security measures will be put in place at the site compound. This may take the form of a security robot.
		It is expected that the working area will be demarcated by a post and rope fence unless otherwise identified in the CEMP.
		Laydown areas will be used along the route of the pipeline. These will be similarly demarcated unless identified in the CEMP.
	Site lighting	Temporary mobile lighting will be used along the route of the pipeline during winter core hours as required. This will move as the scheme progresses. It is not expected that laydown areas will be lit.
	Working hours	Core working hours, winter and summer, continuous working (for the River Cam, A14 and railway crossings) and out of hours working will be undertaken.
	Community engagement	Part A measures refer.
Ecology and nature conservation		The Horizontal Directional Drill pits will be set back at least 10 metres from the edge of the River Cam.
		Badger setts closure licenses will be applied for as required.
		Measures will be implemented to protect trees and scrub adjacent to the working area of the pipeline.
Historic Environment		Part A measures refer.

Topic Area	Site Specific Measure
Land Quality	Land drainage will be appropriately reinstated once the pipeline has been installed.
	Part A measures refer.
Water Quality	Part A measures refer. <i>Note- Pipejack micro tunnelling does not result in the same potential risk for drill fluid break out as Horizontal Directional Drill.</i>
Transport and access	Access to the pipeline route will be as identified in the CTMP.
Noise and Vibration	The requirements for any specific mitigation will be identified through the EIA assessment process. At this stage anticipated that some sections of solid hoarding will need to be put in place around the HDD drill pits located adjacent to sensitive receptors.
Air Quality	As set out in CoCP Part A, a Decommissioning Plan will be prepared. During the decommissioning process tanks will be drained through the existing treatment process as far as reasonably practical. Any residual sludge that cannot be pumped to the sludge treatment process will be removed via suction pump and either taken offsite for treatment or treated onsite via a temporary pasteurisation process such as a quick lime dosing plant. These processes are often sealed; however, the resulting cake can be odorous. This cake will remain on site for as little time as possible. Odour suppression equipment will be utilised where appropriate to minimise any offsite impacts.
	Part A measures refer.
Waste Management	Part A measures refer.

2.5 Existing Cambridge Waste Water Treatment Plant

Topic Area		Site Specific Measure
Site Set Up and General Arrangements	Site set up, security and safety	Part A measures refer.
	Site lighting	Part A measures refer.
	Working hours	Core working hours, winter and summer, continuous working (for the railway crossing, over pumping call out and tunnel construction) and out of hours working will be undertaken.
	Community engagement	Part A measures refer.
		Engagement will be undertaken with the Local Highway Authority and local community with regard to the rising main diversions in Cowley Road and in relation to any over pumping requirements outside of the existing site boundary.
Ecology and nature conservation		Part A measures refer.
Historic Environment		Part A measures refer.
Land Quality		Any further site-specific measures will be identified in the Decommissioning Plan.
		Part A measures refer.
Water Quality		Any further site-specific measures will be identified in the Commissioning Plan.
		Part A measures refer.
Transport and access		Access will be as identified in the CTMP.
Noise and Vibration		Part A measures refer.

Topic Area	Site Specific Measure
Air Quality	Odour may be released when connecting the new transfer tunnel to the existing sewer network and when the existing waste water flows are diverted to the proposed WWTP during construction. The action of opening up existing sewers may result in temporary odour releases. This is not expected to last for a period of more than four weeks. In order to mitigate this potential impact an air extraction system will be put in place and a mobile odour filtration unit located adjacent to the sewer shafts.
	As set out in CoCP Part A, a Decommissioning Plan will be prepared. During the decommissioning process tanks will be drained through the existing treatment process as far as reasonably practical. Any residual sludge that cannot be pumped to the sludge treatment process within the primary settlement tanks, aeration tanks or final settlement tanks will be removed via suction pump and either taken offsite for treatment or treated onsite via a temporary pasteurisation process such as a quick lime dosing plant. These processes are often sealed, however the resulting cake can be odorous. This cake will remain on site for as little time as possible. Odour suppression equipment will be utilised where appropriate to minimise any offsite impacts. During decommissioning of the sludge treatment centre all sludge tanks will be emptied and treated through the existing process as far as reasonably practical. Residual sludge or grit will be removed via suction pump. Sludge will and either treated offsite or within an onsite treatment process as above. This process, along with the above, will be for relatively short interventions. Grit will be removed off site and the wash water wash water pumped to the existing wastewater treatment process on site for treatment.
	Part A measures refer.
Waste Management	Part A measures refer