

Cambridge Waste Water Treatment Plant Relocation Project Anglian Water Services Limited

Appendix 17.3: Construction Noise Assessment

Application Document Reference: 5.4.17.3 PINS Project Reference: WW010003 APFP Regulation No. 5(2)a

Revision No. 01 April 2023



Document Control

| Document title | Noise and Vibration, Construction Noise Assessment |
|-----------------------------|--|
| Version No. | 01 |
| Date Approved | 28.01.23 |
| Date 1 st Issued | 30.01.23 |

Version History

| Version | Date | Author | Checker | Approver | Description of change |
|---------|----------|--------|---------|----------|-----------------------|
| 01 | 30.01.23 | - | - | - | DCO Submission |
| | | | | | |

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1 Noise and Vibration, Construction Noise Assessment

1.1 Construction Noise Assessment

Construction activities

1.1.1 Construction plant, equipment and methodology are as detailed within the Chapter2: Project Description for the purposes of assessment of noise and vibration impacts.The following table summarised activities for key aspect of the construction works.

Table 1-1: Construction noise activities

| Activity | Duration | Working hours | Activity noise level, dB L _{Aeq,T} at 10m |
|--|------------|--|--|
| Proposed WWTP | | | |
| Proposed WWTP Phase 1 Enabling works (establish compound, topsoil strip, prepare earthwork embankment) | 3.5 months | Core, Exceptional (concrete pours, abnormal load deliveries) | 86 |
| Proposed WWTP Phase 2 Enabling works (Earthworks, access road, Horningsea Road junction works) | 3.5 months | | 86 |
| Proposed WWTP (Compound and area external to earth bank area) | 48 months | | 83 |
| Proposed WWTP Water Recycling and STC (area within earth bank area) | 48 months | | 88 |
| Final effluent transfer and ou | tfall | | |
| Enabling, Construct access / haul road | 4 weeks | Core | 79 |
| Enabling, Setup of site hoarding and compounds | 4 weeks | | 84 |
| Excavate Outfall Trench and FE pipe installation | 4 months | | 79 |
| Outfall, Construct cofferdam and river bank improvements | 4 months | | 78 |
| Outfall, Construct cofferdam and river bank improvements [Piling] | 3 weeks | | 86 |
| Transfer tunnelling | | | |
| Enabling, Construct access / haul road | 2 months | Core | 79 |
| Enabling, Setup of site hoarding and compounds | 2 months | Core | 84 |



| Activity | Duration | Working hours | Activity noise level, dB L _{Aeq,T} at 10m |
|--|---|---|--|
| Excavate, construction and works at intercept Shaft 1,2 | 12 months | Core, Exceptional (concrete pours, abnormal load deliveries) | 79 |
| Excavate and construct Shaft 3 | 3 months | Core | 78 |
| Excavate and construct Shaft 4 | 3 months | Core | 78 |
| Excavate and construct Shaft 5 | 3 months | Core | 78 |
| Construction of TPS shaft | 6 months | Core, Exceptional (concrete pours, abnormal load deliveries) | 82 |
| Tunnelling (Tunnel drives from Shaft 3 and Shaft 5) | 5 months | Continuous 24/7 | 80 |
| Shaft Dewatering (Receive shaft dormant while pipe- jacking) | Up to 9 months | Continuous 24/7 | 69 |
| Recover MTBM at receive shaft | 5 days | Core | 74 |
| Waterbeach pipeline | | | |
| Enabling, Construct access / haul road | 4 weeks | Core | 79 |
| Enabling, Setup of site hoarding and compounds | 4 weeks | Core | 84 |
| Compound | > 40 days. | Core, | 77 |
| | Assumed 12 months | Assumed 24/7 for site generators | |
| Horizontal Directional Drilling | Worst case 4 weeks per HDD for larger crossings (e.g. at A14 crossing and River Cam, to include setup and demobilisation per site). Shorter durations for road and smaller HDD drill shots. | Continuous 24/7 during drill shot | 88 |
| Excavation Trench and Install | Waterbeach to Low Fen Drove - 12 months | Core | 79 |
| Pipe | Low Fen Drove to A14 - 2 months | | |
| | A14 to existing WWTP - 3 months | | |
| | Assumed 45-50m pipeline installation per day. | | |
| Decommissioning | | | |
| Decommissioning activities | 4 months | Core, Exceptional (concrete pours, abnormal load deliveries) | 80 |



1.1.2 Construction plant type and utilisation assumptions for each activity are described in the following table. These assumptions have been developed based on the anticipated works and used to calculate noise levels from construction activities at the representative receptor locations using BS5228-1 methodology.



| Activity | Equipment | BS5228-1 Ref | Plant noise level, dB L _{Aeq,T} at 10m | % on-time | Quantity |
|--|---|-----------------|---|-----------|----------|
| Proposed WWTP | | | | | |
| Proposed WWTP Phase 1 Enabling works (establish compound, topsoil strip, prepare earthwork embankment) | D6 and D9 Dozers | C2.10 | 80 | 50 | 5 |
| | 25t Dumper | N/A | 73 | 50 | 4 |
| | 35t Dumper | N/A | 75 | 50 | 4 |
| | 35t Excavator | C2.16 | 75 | 40 | 2 |
| | 20t Excavator | C2.25 | 69 | 40 | 2 |
| | 12t Roller | C5.25 | 75 | 20 | 3 |
| | Towed Roller | C5.25 | 75 | 20 | 2 |
| | Diesel bowsers | N/A | N/A | N/A | 1 |
| | Deliveries, Lorry / Dump Truck | C11.10 | 77 | 10 | 2 |
| Proposed WWTP | D6 and D9 Dozers | C2.10 | 80 | 50 | 4 |
| Phase 2 Enabling | 25t Dumper | N/A | 73 | 50 | 3 |
| works (Earthworks, access road, | 35t Dumper | N/A | 75 | 50 | 3 |
| Horningsea Road | 35t Excavator | C2.16 | 75 | 40 | 2 |
| junction works) | 20t Excavator | C2.25 | 69 | 40 | 4 |
| | 12t Roller | C5.25 | 75 | 20 | 3 |
| | Towed Roller | C5.25 | 75 | 50 | 2 |
| | Mobile crane | C4.43 | 70 | 50 | 2 |
| | Wheeled excavator | C4.66 | 69 | 40 | 3 |
| | 9t Dumper | N/A | 63 | 50 | 4 |
| | Mobile access platform | C4.57 | 67 | 50 | 2 |
| | Tarmac paver | C5.31 | 77 | 25 | 1 |
| | Deliveries, Lorry / Dump Truck | C11.10 | 77 | 10 | 2 |
| Proposed WWTP | 35t Excavator | C2.16 | 75 | 40 | 1 |
| (Compound and | 20t Excavator | C2.25 | 69 | 40 | 1 |
| external to earthbank area) | 25t Dumper | N/A | 73 | 50 | 2 |
| , | D6 Dozer | C2.10 | 80 | 50 | 1 |
| | 12t Roller | C5.25 | 75 | 20 | 1 |
| | 30t Crawler Crane | C4.43 | 70 | 50 | 1 |
| | Site generator | C4.84 | 74 | 100 | 1 |
| | Deliveries, Lorry / Dump Truck | C11.10 | 77 | 10 | 3 |
| | Concrete batching plant and generator | N/A | 78 | 80 | 1 |

Table 1-2: Construction activities noise assumptions



| Activity | Equipment | BS5228-1 Ref | Plant noise level, dB L _{Aeq,T} at 10m | % on-time | Quantity |
|---|--|-----------------|---|-----------|----------|
| Proposed WWTP | 50t Crawler Crane | C4.39 | 77 | 50 | 1 |
| Water Recycling and STC (Within earthbank area) | 30t Crawler Crane | C4.43 | 70 | 50 | 3 |
| | 50t Tower Crane | C4.48 | 76 | 50 | 3 |
| | 20t Excavator | C2.25 | 69 | 40 | 8 |
| | 12t Excavator / 9t Excavator | C2.25 | 69 | 40 | 5 |
| | Wheeled excavator | C4.66 | 69 | 40 | 2 |
| | 12t Dump trucks / 6t Dump trucks | C11.10 | 77 | 50 | 10 |
| | 12t Roller | C5.25 | 75 | 25 | 4 |
| | Compressors | C5.5 | 65 | 50 | 16 |
| | Site generator | C4.84 | 74 | 100 | 1 |
| | Tool generator | C4.84 | 74 | 20 | 10 |
| | Concrete pump | C4.18 | 75 | 50 | 1 |
| | Telehandler | C2.35 | 71 | 50 | 4 |
| | Sheet piling hammer attachment | C3.8 | 88 | 10 | 1 |
| | Deliveries, Lorry / Dump Truck | C11.10 | 77 | 10 | 10 |
| Final effluent transfer | and outfall | | | | |
| Enabling, Construct | 30t Excavator | C2.16 | 75 | 40 | 1 |
| access / haul road | Vibratory compactor | C5.29 | 82 | 30 | 1 |
| | Lorry / Dump Truck | C11.10 | 77 | 10 | 1 |
| | Telescopic handler | C2.35 | 71 | 15 | 1 |
| | Cement mixer truck (discharging) | C4.18 | 75 | 25 | 1 |
| Enabling, Setup of site hoarding and compounds | Lorry / Dump Truck | C11.10 | 77 | 10 | 1 |
| | Hydraulic hammer rig | C3.2 | 87 | 20 | 1 |
| | Tracked excavator | C2.3 | 78 | 100 | 1 |
| | Electric hammer drill | N/A | 75 | 15 | 1 |
| | Electric saw | N/A | 80 | 10 | 1 |
| | Wheeled loader (loading lorry) | C6.33 | 82 | 25 | 1 |



| Activity | Equipment | BS5228-1 Ref | Plant noise level, dB L _{Aeq,T} at 10m | % on-time | Quantity |
|------------------------------------|-------------------------------|-----------------|---|-----------|----------|
| | Handheld cordless nail gun | C4.95 | 73 | 20 | 1 |
| | Mobile crane | C5.37 | 76 | 50 | 1 |
| Excavate Outfall | Excavator 50t | C4.63 | 77 | 40 | 1 |
| Trench and FE pipe installation | Excavator 30t | C2.16 | 75 | 40 | 1 |
| | Excavator 17t | C2.25 | 69 | 40 | 1 |
| | Crawler crane | C5.37 | 76 | 20 | 1 |
| | 12t Dumper | C4.4 & C4.5 | 72 | 40 | 1 |
| | Pipe deliveries | C11.10 | 77 | 10 | 1 |
| | Diesel generator | C4.78 | 66 | 80 | 1 |
| | Pumps and settlement tank | C2.45 | 65 | 80 | 1 |
| | Roller | C5.25 | 75 | 20 | 1 |
| | Stone deliveries | C11.10 | 77 | 10 | 1 |
| Outfall, Construct | Excavator 30t | C2.16 | 75 | 40 | 1 |
| cofferdam and river | Excavator 4t | C3.20 | 68 | 40 | 1 |
| bank improvements | 10t Dumper | C4.4 & C4.5 | 72 | 40 | 1 |
| | Mobile crane | C5.37 | 76 | 20 | 1 |
| | Pumps and settlement tank | C2.45 | 65 | 80 | 1 |
| | Diesel generator | C4.78 | 66 | 80 | 1 |
| | Concrete pump | C3.25 | 78 | 25 | 1 |
| | Concrete mixer truck | C4.32 | 78 | 10 | 1 |
| Outfall, Construct | Excavator 30t | C2.16 | 75 | 40 | 1 |
| cofferdam and river | Excavator 4t | C3.20 | 68 | 40 | 1 |
| bank improvements [Piling] | 10t Dumper | C4.4 & C4.5 | 72 | 40 | 1 |
| | Piling rig (impact) | C3.1 | 89 | 25 | 1 |
| | Sheet piling | C3.8 | 88 | 25 | 1 |
| | Mobile crane | C5.37 | 76 | 20 | 1 |
| | Pumps and settlement tank | C2.45 | 65 | 80 | 1 |
| | Diesel generator | C4.78 | 66 | 80 | 1 |
| | Concrete pump | C3.25 | 78 | 25 | 1 |
| | Concrete mixer truck | C4.32 | 78 | 10 | 1 |
| Transfer tunnelling | | | | | |
| Enabling, Construct | 30t Excavator | C2.16 | 75 | 40 | 1 |
| access / haul road | Vibratory compactor | C5.29 | 82 | 30 | 1 |



| Activity | Equipment | BS5228-1 Ref | Plant noise level, dB L _{Aeq,T} at 10m | % on-time | Quantity |
|--------------------------------------|---|-----------------|---|-----------|----------|
| | Lorry / Dump Truck | C11.10 | 77 | 10 | 1 |
| | Telescopic handler | C2.35 | 71 | 15 | 1 |
| | Cement mixer truck (discharging) | C4.18 | 75 | 25 | 1 |
| Enabling, Setup of site hoarding and | Lorry / Dump Truck | C11.10 | 77 | 10 | 1 |
| compounds | Hydraulic hammer rig | C3.2 | 87 | 20 | 1 |
| | Tracked excavator | C2.3 | 78 | 100 | 1 |
| | Electric hammer drill | N/A | 75 | 15 | 1 |
| | Electric saw | N/A | 80 | 10 | 1 |
| | Wheeled loader (loading lorry) | C6.33 | 82 | 25 | 1 |
| | Handheld cordless nail gun | C4.95 | 73 | 20 | 1 |
| | Mobile crane | C5.37 | 76 | 50 | 1 |
| Excavate, | 22t Excavator | N/A | 73 | 50 | 1 |
| construction and | Telescopic grab | N/A | 71 | 15 | 1 |
| works at intercept Shaft 1,2 | 9t excavator | C2.7 | 70 | 25 | 1 |
| | 22t Mobile Crane | C5.37 | 76 | 50 | 1 |
| | Concrete Pump | C3.25 | 78 | 25 | 1 |
| | Spoil Wagon / Dump Truck | C11.10 | 77 | 10 | 2 |
| | Telescopic handler | C2.35 | 71 | 15 | 1 |
| | Dewatering pump | C2.45 | 65 | 100 | 1 |
| | Settlement tank | N/A | N/A | N/A | 1 |
| | Diesel generator 250kVA | C4.78 | 66 | 80 | 1 |
| | Concrete Truck | C4.32 | 78 | 20 | 1 |
| | Compressor | C5.5 | 65 | 50 | 1 |
| | Over pumping equipment including Generator | C4.78 | 66 | 100 | 1 |
| Excavate and | 30t Excavator | C2.16 | 75 | 40 | 2 |
| construct Shaft 3 | 5t Excavator | C2.7 | 70 | 50 | 1 |
| | Mobile crane | C5.37 | 76 | 50 | 1 |



| Activity | Equipment | BS5228-1 Ref | Plant noise level, dB L _{Aeq,T} at 10m | % on-time | Quantity |
|---------------------|-----------------------------------|-----------------|---|-----------|----------|
| | Spoil Wagon / Dump Truck | C11.10 | 77 | 10 | 1 |
| | Telescopic handler | C2.35 | 71 | 15 | 1 |
| | Dewatering pump | C2.45 | 65 | 100 | 1 |
| | Settlement tank | N/A | N/A | N/A | 1 |
| | Diesel generator | C4.78 | 66 | 80 | 1 |
| | Lorry / Dump Truck | C11.10 | 77 | 5 | 1 |
| Excavate and | 30t Excavator | C2.16 | 75 | 40 | 2 |
| construct Shaft 4 | 5t Excavator | C2.7 | 70 | 50 | 1 |
| | Mobile crane | C5.37 | 76 | 50 | 1 |
| | Spoil Wagon / Dump Truck | C11.10 | 77 | 10 | 1 |
| | Telescopic handler | C2.35 | 71 | 15 | 1 |
| | Dewatering pump | C2.45 | 65 | 100 | 1 |
| | Settlement tank | N/A | | | |
| | Diesel generator | C4.78 | 66 | 80 | 1 |
| | Lorry / Dump Truck | C11.10 | 77 | 5 | 1 |
| Excavate and | 30t Excavator | C2.16 | 75 | 40 | 2 |
| construct Shaft 5 | 5t Excavator | C2.7 | 70 | 50 | 1 |
| | Mobile crane | C5.37 | 76 | 50 | 1 |
| | Spoil Wagon / Dump Truck | C11.10 | 77 | 10 | 1 |
| | Telescopic handler | C2.35 | 71 | 15 | 1 |
| | Dewatering pump | C2.45 | 65 | 100 | 1 |
| | Settlement tank | N/A | N/A | N/A | 1 |
| | Diesel generator | C4.78 | 66 | 80 | 1 |
| | Lorry / Dump Truck | C11.10 | 77 | 5 | 1 |
| Construction of TPS | 22t Excavator | N/A | 73 | 50 | 1 |
| shaft | 16t Excavator | C2.7 | 70 | 50 | 2 |
| | 80t Crawler | C4.39 | 77 | 50 | 1 |
| | 50t Crawler Crane | C4.43 | 70 | 50 | 1 |
| | Drilling rig for tension piles | C3.16 | 79 | 20 | 1 |
| | Spoil Wagon / Dump Truck | C11.10 | 77 | 10 | 3 |



| Activity | Equipment | BS5228-1 Ref | Plant noise level, dB L _{Aeq,T} at 10m | % on-time | Quantity |
|---|----------------------------|-----------------|---|-----------|----------|
| | Telescopic handler | C2.35 | 71 | 15 | 1 |
| | Dewatering pump | C2.45 | 65 | 100 | 2 |
| | Settlement tank | N/A | N/A | N/A | 1 |
| | Diesel generator 250KVA | C4.78 | 66 | 80 | 1 |
| | Concrete Truck | C4.32 | 78 | 20 | 3 |
| | 180 and 260 compressors | C5.5 | 65 | 50 | 2 |
| | Concrete Pump | C3.25 | 78 | 25 | 1 |
| Tunnelling (Tunnel | 30t Excavator | C2.16 | 75 | 25 | 1 |
| lunnelling (Tunnel drives from Shaft 3 and Shaft 5) | 5t Excavator | C2.7 | 70 | 25 | 1 |
| | Mobile crane | C5.37 | 76 | 20 | 1 |
| | Pipejack rig | C2.44 | 77 | 100 | 1 |
| | Lorry / Dump Truck | C11.10 | 77 | 10 | 2 |
| | Telescopic handler | C2.35 | 71 | 15 | 1 |
| | Dewatering pump | C2.45 | 65 | 100 | 1 |
| | Settlement tank | N/A | N/A | N/A | 1 |
| | Diesel generator | C4.78 | 66 | 100 | 1 |
| | Concrete mixer truck | C4.32 | 78 | 10 | 1 |
| Shaft Dewatering | Dewatering pump | C2.45 | 65 | 100 | 1 |
| (Receive shaft dormant while pipe- jacking) | Diesel generator | C4.78 | 66 | 100 | 1 |
| Recover MTBM at | Mobile crane | N/A | 69 | 25 | 1 |
| receive shaft | 30t Excavator | C2.16 | 75 | 40 | 1 |
| | 5t Excavator | C2.7 | 70 | 50 | 1 |
| | Lorry / Dump Truck | C11.10 | 77 | 10 | 1 |
| Waterbeach pipeline | | | | | |
| Enabling, Construct | 30t Excavator | C2.16 | 75 | 40 | 1 |
| access / haul road | Vibratory compactor | C5.29 | 82 | 30 | 1 |
| | Lorry / Dump Truck | C11.10 | 77 | 10 | 1 |
| | Telescopic handler | C2.35 | 71 | 15 | 1 |



| Activity | Equipment | BS5228-1 Ref | Plant noise level, dB L _{Aeq,T} at 10m | % on-time | Quantity |
|--------------------------------------|--|-----------------|---|-----------|----------|
| | Cement mixer truck (discharging) | C4.18 | 75 | 25 | 1 |
| Enabling, Setup of site hoarding and | Lorry / Dump Truck | C11.10 | 77 | 10 | 1 |
| compounds | Hydraulic hammer rig | C3.2 | 87 | 20 | 1 |
| | Tracked excavator | C2.3 | 78 | 100 | 1 |
| | Electric hammer drill | N/A | 75 | 15 | 1 |
| | Electric saw | N/A | 80 | 10 | 1 |
| | Wheeled loader (loading lorry) | C6.33 | 82 | 25 | 1 |
| | Handheld cordless nail gun | C4.95 | 73 | 20 | 1 |
| | Mobile crane | C5.37 | 76 | 50 | 1 |
| Compound | Lorry / Dump Truck | C11.10 | 77 | 10 | 1 |
| | Wheeled loader (loading lorry) | C6.33 | 82 | 25 | 1 |
| | Telescopic handler | C2.35 | 71 | 15 | 1 |
| | Diesel generator | C4.78 | 66 | 80 | 1 |
| Horizontal Directional Drilling | Directional Drilling rig | C4.92 | 87 | 100 | 1 |
| | Generator for directional drill | C4.96 | 77 | 100 | 1 |
| | Slurry cleaning | N/A | 78 | 100 | 1 |
| | Butt fusion machine | N/A | 75 | 20 | 1 |
| | Pumps and settlement tank | C2.45 | 65 | 80 | 1 |
| Excavation Trench | Excavator 50T | C4.63 | 77 | 40 | 1 |
| and Install Pipe | Excavator 30T | C2.16 | 75 | 40 | 1 |
| | Excavator 17T | C2.25 | 69 | 40 | 1 |
| | Crawler crane | C5.37 | 76 | 20 | 1 |
| | 12T Dumper | C4.4 & C4.5 | 72 | 40 | 1 |
| | Pipe deliveries | C11.10 | 77 | 10 | 1 |
| | Diesel generator | C4.78 | 66 | 80 | 1 |
| | Pumps and settlement tank | C2.45 | 65 | 80 | 1 |
| | Roller | C5.25 | 75 | 20 | 1 |



| Activity | Equipment | BS5228-1 Ref | Plant noise level, dB L _{Aeq,T} at 10m | % on-time | Quantity |
|-----------------|-------------------|-----------------|---|-----------|----------|
| | Stone deliveries | C11.10 | 77 | 10 | 1 |
| Decommissioning | | | | | |
| Decommissioning | 22t Excavator | N/A | 73 | 50 | 2 |
| activities | 10t dump truck | C11.10 | 77 | 10 | 4 |
| | 20t mobile crane | C5.37 | 76 | 50 | 1 |
| | Grab wagon | C11.10 | 77 | 10 | 1 |
| | Diesel pump | C4.88 | 68 | 75 | 2 |
| | Diesel bowser | N/A | N/A | N/A | 1 |
| | 180 deg excavator | C4.66 | 69 | 40 | 1 |
| | 5t dumper | C4.57 | 67 | 50 | 2 |
| | Sludge tankers | C11.10 | 77 | 10 | 3 |

Representative receptors

 1.1.3 Representative receptors have been selected for assessment of construction noise. These locations are described in the following table. Receptors are shown in Volume 3, Figure 17.2, (Book of Figures, Noise, App Doc Ref 5.3.17.2).



Table 1-3: Construction noise representative receptors

| ID | Representative | Х, Ү | Baseline | Represent | ative ambie | ent noise le | vel, dB L _{Aeq,T} | | | |
|-----|--|-------------------|--------------------------|---|--|---|---|-------------------------------|-----------------------------|---|
| | receptor | (BNG) | noise level source | Weekday Early Morning (07:00 – 08:00) | Weekday Daytime (08:00 – 19:00) | Saturday Morning (08:00 – 13:00) | Saturday Afternoon (13:00 – 22:00) | Evening (19:00 – 22:00) | Night (22:00 – 07:00) | Sunday Daytime (07:00 – 19:00) |
| RC1 | Receptors on northern extent of Capper Road, Waterbeach | 550213, 266240 | ST-5 * | 48 | 50 | 47 | 48 | 46 | 43 | 45 |
| RC2 | Receptors on eastern extent of Capper Road, Waterbeach | 550352, 266179 | ST-5 | 50 | 52 | 49 | 50 | 48 | 45 | 47 |
| RC3 | Receptors on Bannold Road, Waterbeach | 550339, 265860 | ST-5 | 50 | 52 | 49 | 50 | 48 | 45 | 47 |
| RC4 | Lock Farm, Long Drove, Waterbeach | 550778, 265812 | ST-5 | 50 | 52 | 49 | 50 | 48 | 45 | 47 |
| RC5 | The Cottage, Burgess Drove, Waterbeach | 550523, 265719 | ST-5 | 50 | 52 | 49 | 50 | 48 | 45 | 47 |
| RC6 | 1 Burgess Drove, Waterbeach | 550326, 265294 | ST-4 | 48 | 50 | 47 | 48 | 46 | 43 | 45 |
| RC7 | Cam Sailing Club | 550333, 264890 | ST-4 | 48 | 50 | 47 | 48 | 46 | 43 | 45 |
| RC8 | Cambridge Motor Boat Club | 550227, 264643 | ST-4 | 48 | 50 | 47 | 48 | 46 | 43 | 45 |
| RC9 | Receptors in Clayhithe Road, Horningsea | 550241, 264347 | ST-4 | 48 | 50 | 47 | 48 | 46 | 43 | 45 |



| ID | Representative | Х, Ү | Baseline | Representative ambient noise level, dB LAeq,T | | | | | | | | | | | | |
|------|--|-------------------|--------------------------|---|--|---|---|-------------------------------|-----------------------------|---|--|--|--|--|--|--|
| | receptor | (BNG) | noise level source | Weekday Early Morning (07:00 – 08:00) | Weekday Daytime (08:00 – 19:00) | Saturday Morning (08:00 – 13:00) | Saturday Afternoon (13:00 – 22:00) | Evening (19:00 – 22:00) | Night (22:00 – 07:00) | Sunday Daytime (07:00 – 19:00) | | | | | | |
| RC10 | Receptors along Clayhithe Road between Clayhithe and Horningsea | 549823, 263230 | LT-4 ** | 50 | 52 | 49 | 50 | 48 | 48 | 47 | | | | | | |
| RC11 | Receptors at northern end of Horningsea | 549565, 262808 | LT-4 ** | 50 | 52 | 49 | 50 | 48 | 48 | 47 | | | | | | |
| RC12 | Rear of properties at High Street, Horningsea | 549381, 262408 | LT-4 | 50 | 52 | 49 | 50 | 48 | 48 | 47 | | | | | | |
| RC13 | Receptors on southern extent of Horningsea | 549276, 262147 | LT-4 | 50 | 52 | 49 | 50 | 48 | 48 | 47 | | | | | | |
| RC14 | Cowley Road, Cambridge | 547295, 261896 | ST-2 | 58 | 60 | 57 | 58 | 56 | 53 | 55 | | | | | | |
| RC15 | Biggin Abbey Cottages, Horningsea Road | 548720, 261717 | LT-3 | 60 | 62 | 59 | 59 | 59 | 58 | 57 | | | | | | |
| RC16 | Businesses at Cowley Road | 547106, 261643 | ST-1 | 64 | 66 | 63 | 64 | 62 | 59 | 61 | | | | | | |
| RC17 | Northern Bridge Farm, Fen Road | 548165, 261460 | LT-5 | 59 | 60 | 54 | 53 | 56 | 56 | 56 | | | | | | |
| RC18 | Businesses at Orwell Furlong | 547028, 261425 | ST-1 | 64 | 66 | 63 | 64 | 62 | 59 | 61 | | | | | | |
| RC19 | Poplar Hall, Horningsea Road | 548517, 261372 | LT-5 | 59 | 60 | 54 | 53 | 56 | 56 | 56 | | | | | | |



| ID | Representative | Х, Ү | Baseline | Represent | tative ambie | ent noise le | vel, dB L _{Aeq,T} | | | |
|------|--|-------------------|--------------------------|---|--|---|---|-------------------------------|-----------------------------|---|
| | receptor | (BNG) | noise level source | Weekday Early Morning (07:00 – 08:00) | Weekday Daytime (08:00 – 19:00) | Saturday Morning (08:00 – 13:00) | Saturday Afternoon (13:00 – 22:00) | Evening (19:00 – 22:00) | Night (22:00 – 07:00) | Sunday Daytime (07:00 – 19:00) |
| RC20 | Cambridge Gold Driving Range | 547148, 261330 | ST-1 ** | 58 | 60 | 57 | 58 | 56 | 53 | 55 |
| RC21 | Cambridge Business Park, Cowley Road | 547016, 261293 | ST-1 | 64 | 66 | 63 | 64 | 62 | 59 | 61 |
| RC22 | Red House Close, Green End | 548378, 261285 | LT-5 | 59 | 60 | 54 | 53 | 56 | 56 | 56 |
| RC23 | Fen Road (travellers site) | 548002, 261183 | LT-1 | 56 | 57 | 55 | 52 | 54 | 54 | 55 |
| RC24 | Receptors south of existing Cambridge WWTP | 546823, 261077 | ST-1 ** | 58 | 60 | 57 | 58 | 56 | 53 | 55 |
| RC25 | 38 Green End, Fen Ditton | 548372, 261043 | LT-1 | 56 | 57 | 55 | 52 | 54 | 54 | 55 |
| RC26 | Gate House, Low Fen Drove | 550457, 260941 | LT-2 *** | 55 | 55 | 51 | 51 | 51 | 51 | 50 |
| RC27 | Receptors off Horningsea Road, Fen Ditton | 548802, 260809 | LT-1 | 56 | 57 | 55 | 52 | 54 | 54 | 55 |
| RC28 | Parsonage Farm, Low Fen Drove | 549807, 261561 | LT-4 | 50 | 52 | 49 | 50 | 48 | 48 | 47 |

* Correction has been applied (- 2 dBA) to account for the increased distance from the railway line at this location which presents the dominant noise source at this receptor location.

** Correction applied to account for distance from primary road traffic noise sources affecting measurement location with respect to receptor.

*** Correction applied for LT-2 proxy measurement location using verification measurement result as described in Baseline Noise Report, (Appendix, 17.2, Application Document Reference 5.4.17.2)



Results

- 1.1.4 Calculations have been completed at the representative receptor locations based on the maximum design scenario and the stated plant type and utilisation assumptions for all areas of the Proposed Development. Analysis and assessment of the results are provided within the ES Noise and Vibration Chapter.
- 1.1.5 All predictions are shown as free-field results and with embedded (primary and tertiary mitigation) where applicable. Calculations have been completed for distances up to 500m from construction work activities to include all representative receptors within the Study Area. Noise levels are only reported for receptors within 500m of the construction work activity. Receptors at greater distances would not be subject to adverse effects.



Table 1-4: Construction predicted noise levels

Calculated free-field receptor noise level, dB LAeq,T

| Activity | RCI | RC2 | RC3 | RC4 | RCS | RC6 | RC7 | RC8 | RC9 | RC10 | RC11 | RC12 | RC13 | RC14 | RC15 | RC16 | RC17 | RC18 | RC19 | RC20 | RC21 | RC22 | RC23 | RC24 | RC25 | RC26 | RC27 | RC28 |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Proposed WWTP Phase 1 | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | 50 | 53 |
| Enabling works | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Proposed WWTP Phase 2 | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | 50 | 53 |
| Enabling works | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Proposed WWTP Water | | | | | | | | | | | | | | | | | | | | | | | | | | 46 | 49 | 50 |
| Recycling and STC | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Compound and external | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| to earthbank area) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Proposed WWTP Water | | | | | | | | | | | | | | | | | | | | | | | | | | | | 40 |
| Recycling and STC | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Within earthbank area) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FE Transfer and Outfall | | | | | | | | | | | | | | | 55 | | | | 43 | | | 39 | | | | | | |
| Enabling, Construct | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| access / haul road | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FE Transfer and Outfall | | | | | | | | | | | | | | | 52 | | 46 | | 47 | | | 45 | | | | | | |
| Enabling, Setup of site | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| hoarding and | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| compounds | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Excavate Outfall Trench | | | | | | | | | | | | | | | 52 | | | | 44 | | | 39 | | | | | | |
| and FE pipe installation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Outfall, Construct | | | | | | | | | | | | | | | 49 | | 41 | | 41 | | | 39 | | | | | | |
| cofferdam and river bank | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| improvements | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Outfall, Construct | | | | | | | | | | | | | | | 53 | | 50 | | 50 | | | 48 | | | | | | |
| cofferdam and river bank | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| improvements [Piling] | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shaft 1 and 2 – Enabling, | | | | | | | | | | | | | | 46 | | 55 | | 55 | | 55 | 50 | | | | | | | |
| Setup of site hoarding | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| and compounds | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shaft 1 and 2 – Works at | | | | | | | | | | | | | | 41 | | 51 | | 50 | | 50 | 46 | | | | | | | |
| Shaft 1,2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



| Dewatering (Dormant while pipe-jacking) Shaft 1 and 2 – Recover 36 45 45 40 MTBM Shaft 3 – Enabling, Setup 50 47 of site hoarding and compounds | Calculated free-field receptor noise level, dB LAeg,T | | | | | | | | |
|--|---|----|----|----|----|----|----|----|----|
| while pipe-jacking) 36 45 45 45 40 Shaft 1 and 2 - Recover 50 47 50 50 47 Shaft 3 - Enabling, Setup 50 47 50 | Shaft 1 and 2 – | 30 | 40 | 39 | 40 | 35 | | | |
| Shaft 1 and 2 - Recover 36 45 45 45 40 MTBM 50 47 - | Dewatering (Dormant | | | | | | | | |
| MTBM 50 47 Shaft 3 - Enabling, Setup 50 47 compounds - - Shaft 3 - Excavate and 44 42 construct - - Shaft 3 - Excavate and 46 43 (Drive from Shaft 3 to Shaft 1) - - Shaft 3 - Enabling, Cetup from - 60 39 48 Construct access / haul - - - - Shaft 4 - Enabling, Setup of site hoarding and compounds - - - - Shaft 4 - Enabling, Setup of site hoarding and compounds - - - - - Shaft 4 - Enabling, Setup of site hoarding and compounds - | while pipe-jacking) | | | | | | | | |
| Shaft 3 - Enabling, Setup 50 47 of site hoarding and 44 42 compounds 44 42 Shaft 3 - Excavate and 46 43 construct 46 43 Shaft 3 - Tunnelling 46 43 (Drive from Shaft 3 to Shaft 3, and Drive from Shaft 3, and Drive from Shaft 3 to Shaft 4) - - Construct access / haul - - road - - - Shaft 4 - Enabling, Setup 48 59 65 44 51 of site hoarding and - - - - - construct access / haul - - - - - Shaft 4 - Enabling, Setup 48 59 65 44 51 - construct access / haul - <t< td=""><td>Shaft 1 and 2 – Recover</td><td>36</td><td>45</td><td>45</td><td>45</td><td>40</td><td></td><td></td><td></td></t<> | Shaft 1 and 2 – Recover | 36 | 45 | 45 | 45 | 40 | | | |
| or site hoarding and compounds Shaft 3 - Excavate and 44 42 construct Shaft 3 - Tunnelling 46 43 Construct Shaft 3 - Tunnelling 46 43 Construct Shaft 3 - Tunnelling 46 43 Construct access / haul compounds C | МТВМ | | | | | | | | |
| compounds 44 42 Shaft 3 – Excavate and construct 46 43 Shaft 3 – Tunnelling (Drive from Shaft 3 to Shaft 2, and Drive from Shaft 3 to Shaft 4) 43 54 60 39 48 Shaft 4 – Enabling, Construct access / haul read 54 60 39 48 54 <t< td=""><td></td><td></td><td></td><td>50</td><td></td><td></td><td>47</td><td></td><td></td></t<> | | | | 50 | | | 47 | | |
| Shaft 3 - Excavate and construct 44 42 construct 46 43 Shaft 3 - Tunnelling (Drive from Shaft 3 to Shaft 3) 46 43 Shaft 3 - Tunnelling, Construct access / haul read 43 54 60 39 48 Construct access / haul read 48 59 65 44 51 51 Shaft 4 - Enabling, Setup of site hoarding and compounds 48 59 65 44 51 Shaft 4 - Enabling, Setup of site hoarding and compounds 2 53 59 39 45 Shaft 4 - Dewatering (Dormant while pipe-jacking) 32 44 50 29 36 Shaft 5 - Enabling, Setup of site hoarding and compounds 40 39 48 51 Shaft 4 - Dewatering (Dormant while pipe-jacking) 38 49 55 34 41 Shaft 5 - Enabling, Setup of site hoarding and compounds 40 39 48 51 Shaft 5 - Enabling, Setup of site hoarding and compounds 45 44 51 51 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 48 51 51 Sh | of site hoarding and | | | | | | | | |
| construct 46 43 Shaft 3 - Tunnelling 46 43 Corrison Shaft 3 to Shaft 4. Shaft 4. Shaft 4. Shaft 4. Shaft 4. Shaft 4. Shaft 4. Shaft 4. Shaft 4. Construct access / haul 43 54 60 39 48 Construct access / haul | compounds | | | | | | | | |
| Shaft 3 - Tunnelling 46 43 (Drive from Shaft 3 to Shaft 3 to Shaft 3 to Shaft 4) Shaft 4 - Enabling, 43 54 60 39 48 Construct access / haul road 43 54 60 39 48 Shaft 4 - Enabling, Setup or site hoarding and compounds 48 59 65 44 51 Shaft 4 - Enabling, Setup or site hoarding and compounds 42 53 59 39 45 Shaft 4 - Dewatering (Dorman while pipe-jacking) 32 44 50 29 36 Construct access / haul road 38 49 55 34 41 Shaft 4 - Dewatering (Dorman while pipe-jacking) 38 49 55 34 41 Shaft 5 - Enabling, Construct access / haul road 40 39 48 51 51 Shaft 5 - Enabling, Setup or site hoarding and compounds 45 44 51 51 51 Shaft 5 - Enabling, Setup or site hoarding and compounds 39 38 48 51 51 Shaft 5 - Enabling, Setup or site hoarding and compounds 39 38 48 <td>Shaft 3 – Excavate and</td> <td></td> <td></td> <td>44</td> <td></td> <td></td> <td>42</td> <td></td> <td></td> | Shaft 3 – Excavate and | | | 44 | | | 42 | | |
| (Drive from Shaft 3 to Shaft 2, and Drive from Shaft 3 to Shaft 2, and Drive from Shaft 4 Drive from Shaft 5 Drive | | | | | | | | | |
| Shaft 2, and Drive from Shaft 3 to Shaft 4) Shaft 4 - Enabling, 43 54 60 39 48 Construct access / haul 70 70 70 70 Shaft 4 - Enabling, Setup 48 59 65 44 51 51 Shaft 4 - Enabling, Setup 48 59 59 39 45 70 Shaft 4 - Excavate and 20 53 59 39 45 70 Construct 32 44 50 29 36 70 Shaft 4 - Dewatering 32 44 50 29 36 (Dormant while pipe- 38 49 55 34 41 Shaft 4 - Recover MTBM 38 49 55 34 41 Shaft 5 - Enabling, 40 51 51 65 64 51 51 Shaft 5 - Enabling, Setup 45 44 51 51 51 51 51 Shaft 5 - Enabling, Setup 38 49 53 51 51 51 51 <t< td=""><td>5</td><td></td><td></td><td>46</td><td></td><td></td><td>43</td><td></td><td></td></t<> | 5 | | | 46 | | | 43 | | |
| Shaft 3 to Shaft 4 43 54 60 39 48 Construct access / haul 700 700 700 700 Shaft 4 - Enabling, Setup 48 59 65 44 51 Shaft 4 - Enabling, Setup 48 59 65 44 51 Shaft 4 - Excavate and 2 53 59 39 45 construct 32 44 50 29 36 Shaft 4 - Dewatering 32 44 50 29 36 (Dormant while pipe- jacking) 38 49 55 34 41 Shaft 5 - Enabling, 40 39 48 Construct access / haul 70 39 48 Construct access / haul 70 39 48 Construct access / haul 70 70 71 road 40 51 51 Shaft 5 - Enabling, Setup 45 44 51 of site hoarding and 70 74 51 construct 75 44 51 S | | | | | | | | | |
| Shaft 4 - Enabling, 43 54 60 39 48 Construct access / haul 7 8 59 65 44 51 Shaft 4 - Enabling, Setup 48 59 65 44 51 Shaft 4 - Enabling, Setup 42 53 59 39 45 Construct 42 53 59 39 45 Shaft 4 - Dewatering 32 44 50 29 36 (Dormant while pipe- jacking) 38 49 55 34 41 Shaft 5 - Enabling, 40 39 48 Construct access / haul 70 39 48 Shaft 5 - Enabling, 40 39 48 Construct access / haul 70 39 48 Construct access / haul 70 39 48 Shaft 5 - Enabling, Setup 45 44 51 of site hoarding and 70 74 51 compounds 75 44 51 Shaft 5 - Enabling, Setup 75 38 48 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<> | | | | | | | | | |
| Construct access / haul road Shaft 4 - Enabling, Setup of site hoarding and compounds Shaft 4 - Excavate and compounds Shaft 4 - Excavate and compounds Shaft 4 - Dewatering (Dormant while pipe-jacking) Shaft 4 - Recover MTBM Shaft 4 - Recover MTBM Shaft 5 - Enabling, Setup of site hoarding and compounds Shaft 5 - Enabling, Setup of site hoarding and compounds Shaft 5 - Enabling, Setup of site hoarding and compounds Shaft 5 - Enabling, Setup of site hoarding and compounds Shaft 5 - Enabling, Setup of site hoarding and compounds Shaft 5 - Enabling, Setup of site hoarding and compounds Shaft 5 - Enabling, Setup of site hoarding and compounds Shaft 5 - Enabling, Setup of site hoarding and compounds Shaft 5 - Enabling, Setup of site hoarding and compounds Shaft 5 - Enabling, Setup of site hoarding and compounds Shaft 5 - Enabling, Setup of site hoarding and compounds Shaft 5 - Enabling, Setup of site hoarding and compounds Shaft 5 - Enabling, Setup of site hoarding and compounds Shaft 5 - Enabling, Setup of site hoarding and compounds Shaft 5 - Enabling, Setup of site hoarding and compounds Shaft 5 - Enabling, Setup of site hoarding and compounds Shaft 5 - Enabling, Setup of site hoard | | | | | | | | | |
| road 48 59 65 44 51 shaft 4 - Enabling, Setup of site hoarding and compounds 42 53 59 39 45 Shaft 4 - Excavate and construct 22 53 59 39 45 Shaft 4 - Dewatering (Dormant while pipe-jacking) 32 44 50 29 36 Shaft 4 - Recover MTBM 38 49 55 34 41 Shaft 5 - Enabling, Setup of site hoarding and compounds 40 39 48 Construct access / haul road 45 44 51 Shaft 5 - Enabling, Setup of site hoarding and compounds 45 44 51 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 48 51 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 48 51 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 48 51 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 48 51 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 48 51 Shaft 5 - Enabling, Setup of site hoarding and compounds 38 48 <td>-</td> <td></td> <td></td> <td>43</td> <td>54</td> <td>60</td> <td>39</td> <td>48</td> <td></td> | - | | | 43 | 54 | 60 | 39 | 48 | |
| Shaft 4 - Enabling, Setup 48 59 65 44 51 of site hoarding and compounds 2 53 59 39 45 Shaft 4 - Excavate and compounds 2 53 59 39 45 Shaft 4 - Dewatering (Dormant while pipe-jacking) 32 44 50 29 36 Shaft 4 - Recover MTBM 38 49 55 34 41 Shaft 5 - Enabling, Construct access / haul road 40 39 48 Shaft 5 - Enabling, Setup of site hoarding and compounds 45 44 51 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 38 48 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 38 48 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 38 48 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 38 48 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 38 48 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 38 48 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 | | | | | | | | | |
| of site hoarding and compounds 42 53 59 39 45 Shaft 4 - Excavate and construct 32 44 50 29 36 Shaft 4 - Dewatering (Dormant while pipe-jacking) 38 49 55 34 41 Shaft 4 - Recover MTBM 38 49 55 34 41 Shaft 5 - Enabling, Construct access / haul road 40 39 48 Shaft 5 - Enabling, Setup of site hoarding and compounds 45 44 51 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 38 48 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 38 48 Shaft 5 - Encavate and construct 39 38 48 Shaft 5 - Encavate and construct 41 40 48 | | | | | | | | | |
| compounds 42 53 59 39 45 construct 32 44 50 29 36 Shaft 4 - Dewatering (Dormant while pipe- jacking) 32 44 50 29 36 Shaft 4 - Recover MTBM 38 49 55 34 41 Shaft 5 - Enabling, Construct access / haul road 40 39 48 Shaft 5 - Enabling, Setup of site hoarding and compounds 45 44 51 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 38 48 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 38 48 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 38 48 Shaft 5 - Furante and Construct 39 38 48 | | | | 48 | 59 | 65 | 44 | 51 | |
| Shaft 4 - Excavate and construct 42 53 59 39 45 Shaft 4 - Dewatering (Dormant while pipe-jacking) 32 44 50 29 36 Shaft 4 - Recover MTBM 38 49 55 34 41 Shaft 5 - Enabling, Construct access / haul road 40 39 48 Construct access / haul road 45 44 51 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 38 48 Shaft 5 - Excavate and construct 39 38 48 Shaft 5 - Enabling, Setup of site hoarding and compounds 39 38 48 Shaft 5 - Excavate and construct 39 38 48 Shaft 5 - Funnelling 41 40 48 | | | | | | | | | |
| construct 32 44 50 29 36 (Dormant while pipe- jacking) 38 49 55 34 41 Shaft 4 - Recover MTBM 38 49 55 34 41 Shaft 5 - Enabling, Construct access / haul road 40 39 48 Shaft 5 - Enabling, Setup of site hoarding and compounds 45 44 51 Shaft 5 - Excavate and construct 39 38 48 Shaft 5 - Excavate and construct 39 38 48 Shaft 5 - Tunnelling 41 40 48 | | | | | | | | | |
| Shaft 4 – Dewatering (Dormant while pipe- jacking) 32 44 50 29 36 Shaft 4 – Recover MTBM 38 49 55 34 41 Shaft 5 – Enabling, Construct access / haul road 40 39 48 Shaft 5 – Enabling, Setup of site hoarding and compounds 45 44 51 Shaft 5 – Encavate and construct 39 38 48 Shaft 5 – Encavate and construct 39 38 48 Shaft 5 – Tunnelling 41 40 48 | | | | 42 | 53 | 59 | 39 | 45 | |
| (Dormant while pipe-jacking) Shaft 4 – Recover MTBM 38 49 55 34 41 Shaft 5 – Enabling, 40 39 48 Construct access / haul 70 39 48 road 45 44 51 Shaft 5 – Enabling, Setup 45 44 51 of site hoarding and compounds 39 38 48 Shaft 5 – Excavate and construct 39 38 48 Shaft 5 – Tunnelling 41 40 48 | | | | | | | | | |
| jacking) Shaft 4 - Recover MTBM 38 49 55 34 41 Shaft 5 - Enabling, Construct access / haul road Shaft 5 - Enabling, Setup of site hoarding and compounds Shaft 5 - Excavate and construct Shaft 5 - Excavate and construct Shaft 5 - Tunnelling 41 40 48 | | | | 32 | 44 | 50 | 29 | 36 | |
| Shaft 4 - Recover MTBM3849553441Shaft 5 - Enabling, Construct access / haul road403948Shaft 5 - Enabling, Setup of site hoarding and compounds454451Shaft 5 - Excavate and construct393848Shaft 5 - Enabling and compounds393848Shaft 5 - Enabling and compounds414048 | | | | | | | | | |
| Shaft 5 - Enabling, Construct access / haul road403948Shaft 5 - Enabling, Setup of site hoarding and compounds454451Shaft 5 - Excavate and construct393848Shaft 5 - Tunnelling414048 | | | | | | | | | |
| roadroadShaft 5 - Enabling, Setup of site hoarding and compounds454451Shaft 5 - Excavate and construct393848Shaft 5 - Tunnelling414048 | | | | 38 | 49 | 55 | 34 | | |
| road Shaft 5 – Enabling, Setup of site hoarding and compounds Shaft 5 – Excavate and construct Shaft 5 – Tunnelling Au | | | | | 40 | | | 39 | 48 |
| Shaft 5 - Enabling, Setup of site hoarding and compounds454451Shaft 5 - Excavate and construct393848Shaft 5 - Tunnelling414048 | | | | | | | | | |
| of site hoarding and compounds Shaft 5 – Excavate and 39 38 48 construct Shaft 5 – Tunnelling 41 40 48 | | | | | | | | | |
| compoundsShaft 5 – Excavate and construct393848Shaft 5 – Tunnelling414048 | | | | | 45 | | | 44 | 51 |
| Shaft 5 – Excavate and construct 39 38 48 Shaft 5 – Tunnelling 41 40 48 | | | | | | | | | |
| construct 41 40 48 | | | | | | | | | |
| Shaft 5 – Tunnelling 41 40 48 | Shaft 5 – Excavate and | | | | 39 | | | 38 | 48 |
| | | | | | | | | | |
| (Drive from Shaft 5 to | . | | | | 41 | | | 40 | 48 |
| | (Drive from Shaft 5 to | | | | | | | | |



Calculated free-field receptor noise level, dB LAeq, T

| Shaft 4, and Drive from | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Shaft 5 to Terminal | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pumping Station) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPS Shaft – Construction | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| of TPS shaft | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPS Shaft – Dewatering | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Dormant while pipe- jacking) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TPS Shaft – Recover MTBM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Waterbeach Pipeline, | 53 | 62 | 46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Enabling, Setup of site | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| hoarding and | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| compounds | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Waterbeach Pipeline, | 46 | 55 | 39 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Compound | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Waterbeach Pipeline, | 55 | 63 | 59 | 55 | 65 | 55 | 59 | 50 | | | | | | | | | 67 | | 48 | | | 68 | 56 | | 59 | | 65 | 51 |
| Horizontal Directional | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drilling | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Waterbeach Pipeline, | 49 | 59 | 49 | 45 | 69 | 61 | 51 | 46 | 70 | 53 | 54 | 49 | 46 | 53 | 39 | 53 | 58 | 44 | 49 | 43 | 41 | 66 | 46 | 35 | 55 | 28 | 60 | 42 |
| Excavation Trench and | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Install Pipe | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Decommissioning | | | | | | | | | | | | | | 56 | | 48 | 48 | 59 | | 58 | 59 | 39 | 45 | 42 | | | | |
| Existing WWTP | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Decommissioning | 48 | 45 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Waterbeach WRC | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Construction traffic

1.1.6 A summary of construction traffic parameters used within assessment of noise impacts is provided in the following table.

| Road/route | Speed | Baseline | Baseline | Additional | Additional | Baseline | With | BNL |
|---------------------|-------|----------|----------|--------------|--------------|----------|--------------|-----------|
| | | Flow, | % HGV | Construction | Construction | BNL, dBA | Construction | Increase, |
| | | AADT | | Cars/LDV | HGV | | Traffic BNL, | dBA |
| | | | | | | | dBA | |
| A14 | 112 | 65273 | 11.4 | 319 | 542 | 82.6 | 82.8 | +0.2 |
| A14 J34 Slip Road | 112 | 11454 | 13.0 | 258 | 370 | 75.3 | 75.8 | +0.5 |
| Horningsea Road (at | 61 | 5633 | 2.6 | 261 | 370 | 65.9 | 67.8 | +1.9 |
| main site access) | | | | | | | | |
| Horningsea Road (at | 61 | 5633 | 2.6 | 27 | 45 | 65.9 | 66.2 | +0.3 |
| transfer tunnel | | | | | | | | |
| access) | | | | | | | | |
| Denny End Road | 47 | 5515 | 5.5 | 14 | 82 | 65.4 | 65.8 | +0.4 |
| Bannold Road | 37 | 2687 | 3.2 | 14 | 82 | 60.7 | 61.9 | +1.2 |
| Car Dyke Road | 60 | 4249 | 4.0 | 14 | 82 | 65.0 | 65.5 | +0.5 |
| Clayhithe Road | 46 | 4319 | 2.4 | 14 | 82 | 63.2 | 63.9 | +0.7 |
| Burgess Road* | N/A | N/A | N/A | 14 | 82 | N/A | N/A | N/A |
| A10 | 112 | 23731 | 6.1 | 12 | 82 | 71.8 | 71.9 | +0.1 |
| Cowley Road* | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Milton Road | 40 | 18963 | 4.4 | 47 | 90 | 69.9 | 70.0 | +0.1 |
| Green End Road | 34 | 7682 | 5.6 | 14 | 90 | 66.0 | 66.5 | +0.5 |
| Fen Road | 33 | 4664 | 5.5 | 14 | 90 | 63.8 | 64.5 | +0.7 |

Table 1-5: Construction traffic parameters

* Routes have very low existing flows



Get in touch

You can contact us by:



Emailing at info@cwwtpr.com

C

Calling our Freephone information line on **0808 196 1661**





Visiting our website at

You can view all our DCO application documents and updates on the application on The Planning Inspectorate website:

https://infrastructure.planninginspectorate.gov.uk/projects/eastern/cambri dge-waste-water-treatment-plant-relocation/

