

Havant Thicket Reservoir

Construction Method Statement (CMS)

Havant Thicket Reservoir – Dual Pipeline Planning
Application (Reservoir Site)

01/04/24 | v1.0

Document Reference : HTR-FUW-RZ-RE-MS-W-0547



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1. Introduction

- a) This Construction Method Statement has been prepared by Future Water MJJV to support the Pipeline planning application for Dual Pipeline Construction Between Bedhampton Springs and Havant Thicket Reservoir. This Construction Method Statement focuses on construction of the inlet pipeline that forms part of the pipeline application, separate to the Main Reservoir Works (MRW) Application that covers the remaining works at Havant Thicket Reservoir Site. The works covered in the hybrid permission application APP/20/00990 are detailed in a separate CMS that covers the Reserved Matters Phases 1-9.
- b) This document is required to discharge Condition 6 of the permissions. The requirements of Condition 6 and where within this document the requirements are addressed are set out in **Table 1** below.
- c) This document will remain a live document and will be updated for each phase of reserved matters applications & does not replace any safe system of work / RAMS prepared for site specific activity.
- d) The objective of the scheme is to provide a new resource to supply drinking water in the water-stressed Southeast of England, while maximising the community and environmental benefits of a new Raw Water reservoir. Similarly, one of the strategic drivers for the scheme is to ensure a positive contribution to local and internationally important habitats by supporting Government's objective to reduce the damaging abstraction of water from rivers.
- e) The reservoir, when constructed, will be filled with surplus water drawn from the springs at the Portsmouth Water pumping station at Bedhampton works when flows are at their highest in winter via a new combined inlet/outline pipeline, and will provide water supplies to Portsmouth Water customers in the summer months as required.
- f) This document is to be read in conjunction with the following phase specific documents:
 - Detailed Phasing Plan
 - Construction Noise & Vibration Management Plan
 - Construction Noise Assessment
 - Construction Traffic Management Plan
 - Construction Environmental Management Plan
 - Archaeological Management Plan & Written Scheme of Investigation

2. Site Details

- a) The site is located to the north of Havant in Hampshire
- b) To the north, the site is bounded by forestry land owned by Forestry England
- c) To the east, the site is bounded by forestry land and the B2149
- d) To the south, the site is bounded by a mixture of amenity land (Staunton Country Park) and residential properties forming part of the Leigh Park estate.
- e) To the west, the site is bounded by further residential properties on Swanmore Road, and amenity land made up of heath and wooded land.

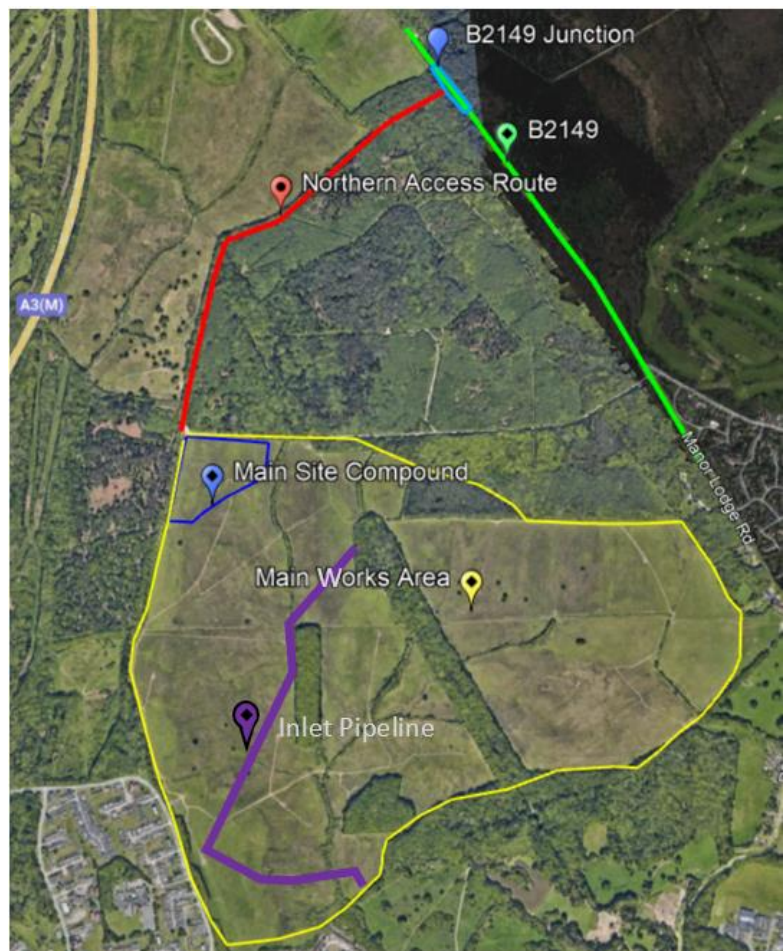


Fig. 1. Site location

3. Scope of Construction Activities

The scope of the works to be undertaken by Future Water during pipeline construction are:

- Construction of open cut pipeline between reception pit within MRW redline boundary and the upstream toe of the reservoir embankment. The inlet pipe will then be surface mounted from the embankment toe to discharge point within the Main Reservoir.

4. Programme and Sequence of Works

- a) Works to construct reservoir inlet pipeline, between the reception pit within the MRW boundary (Interface pit with Pipeline Contractor) and the discharge point will be constructed between Spring 2027 and Autumn 2028.

5. Consents

- 5.1 **Consents Manager** (Iain Johnson) was appointed at the start of the project and is responsible for ensuring all consents are in place for works due to commence. Consents required to commence include environmental and planning consents.

6. Health and Safety Management

- 6.1 The Principal Contractor must be committed to promoting a positive safety culture. The Health and Safety of the local community and all personnel involved in the project is of the highest importance.
- 6.2 Specific risk assessments and supplementary method statements will be produced and developed, as appropriate, prior to the onset of the works. These will be produced and reviewed prior to works commencing. Any critical works involved with the main reservoir works will be subject to full review by the Construction Engineer.
- 6.3 An emergency response plan will be produced for the site which will detail what procedures to following the event of an emergency. This will also include any environmental emergencies. The emergency services will also be invited to site to see the site access and understand the procedures to follow if they need to attend site. All relevant authorities will be informed of any emergencies or incidents as required, including the Environment Agency.
- 6.4 A construction Phase Plan (CP) will be produced prior to works commencing detailing arrangements for controlling significant risk on site. Within the construction phase plan, it will provide the management structure and responsibilities of all personnel and staff on site.

6.5 A site Security and communication plan (HTR-FUW-ZZ-ZZ-PL-W-0507) has been produced for the MRW detailing arrangements to ensure the site is secure from intruders which may cause any security or health & safety issues on site.

6.6 The site manager will be responsible for ensuring suitable controls are applied at all times. The site manager will liaise with the Planning Authority and Environment Agency during the works as necessary and will ensure that, in the unlikely event of any nuisance-related issues, they are dealt with effectively and promptly.

7. Welfare

7.1 All works will be constructed ensuring suitable welfare is provided at all times and in line with CDM regs 2015. Where construction of compound are in progress, mobile welfare units may be used in the short term. Welfare will include, as a minimum but not limited to;

- Drinking Water
- Male & female toilets
- Hot water
- Changing facilities
- Rest facilities with heating
- Canteens with facilities to heat food.
- Smoking areas
- Suitable parking areas

8. Access/Egress

8.1 **Traffic Management Plan** - All access for the main works will be via the Northern Access Route (NAR) as noted in section 2. A Traffic Management Plan (HTR-FUW-RZ-RE-HS-W-0506) has been produced for the MRW and issued for approval to the LPA. This has been issued to discharge condition 12 of the Hybrid Permission. This details the access routes, procedures and timings for deliveries and staff traffic to site to minimise impact. Please refer to the Construction Traffic Management Plan for more details.

8.2 Oversize loads will be delivered to site under traffic order with the local authority. Deliveries will use the NAR at 45min intervals to prevent backlog of deliveries on to the B2149. The NAR has a nominal width restriction of 3.65m and an axle weight limit of 12t per axle. The tree canopy is 4.9m above road level, All deliveries and plant movements are to be booked through Wilson James Flulcrum booking system under the direction of the Logistics Manager.

9. Environmental

9.1 **Construction Environmental Method Statement** (HTR-RHD-P2-RE-PL-Z-018) - Prior to any works commencing a Construction Environmental Management Plan (CEMP) will be produced detailing all the relevant environmental issues on the project. This CEMP will be based on the documentation provided for the MRW planning approval, which covers the works contained within the Dual Pipeline Planning Application.

9.2 Environmental Manager – The environmental manager (Andrew Hepworth) was appointed at the start of the project and is responsible for producing and updating the CEMP. They will be the point of contact for all environmental issues on site; ensure all works are carried out inline with the CEMP and commitments under the Record of Environmental Actions and Commitments (REAC).

9.3 Ecological Clerk of Works (ECoW) – The Ecological Clerk of Works (ECoW) has been appointed (John Couldron), and is full time on site during site preparation and clearance and during any works in sensitive areas, and to undertake regular monitoring visits throughout construction programme.

9.4 Toolbox Talk – Toolbox talk will be issued throughout the work. A schedule of Toolbox talk will be listed in the CEMP. These will be provided during relevant works require and where the risk is higher during any specific seasons.

9.5 Waste – Concrete Washout – Concrete washout from deliveries will be disposed of using a silt-buster (or similar) concrete wash out skip. The washout skip will be used to wash down machinery, process and cutting or coring slurry and treat surface water run-off from concrete activities. The unit uses filtration and CO2 to process the dirty water and separate the solids from liquid waste. The solid waste is collected in bags and disposed of through licenced haulier and the treated water is then tested and either used in site processes or disposed of by licenced haulier.

9.6 Environmental Checks prior to construction

- **Birds** – Precautionary pre-clearance survey will be undertaken at areas of suitable habitat. Vegetation clearance in these areas will follow a Precautionary Method of Working (PMW). Any clearance completed inside the bird nesting season will follow the precautionary method of works and ensuring all bird nesting checks are completed by a qualified ecologist on site.
- **Reptiles** - Clearance of suitable habitat will follow a Precautionary Method of Works. This is likely to include a combination of translocation and displacement of animals into enhanced adjacent retained habitat. The PMW will set out the season and method of clearance. This will include stage cutting of grassed areas prior to any stripping of grassland.
- **Amphibians** – common amphibians encountered during site clearance will be moved to safe areas of retained habitat. An eDNA survey will be completed on upper lake to confirm no great crested newts.
Dormice - Vegetation clearance and tree felling methods to minimise risks to individual dormice will be followed as set out in the dormouse licence method statement.
- **Bats** – Mitigation will be provided for lighting during construction and operation. Any temporary lighting required during construction will be designed to minimise light spill. Permanent lighting will comprise hooded luminaires directed away from vegetation, particularly the boundary hedgerows and treelines to avoid any light spill onto retained vegetation. Lighting will follow good practice current at the time of detailed design. The

new lighting will be task-related, associated with the visitor centre and associated car park and with no lighting on the access roads. The lux level will be as low as possible to meet their purpose safely and effectively.

- Noise – A Noise Impact Assessment (HTR-RHD-P2-RE-W-017) will be completed ahead of the construction works phase to confirm mitigation required. A Noise & Vibration Management Plan will also be produced and discussed with the Environmental Health Officers. Monitoring will take place 4 times a year or as new activities with potential for noise commence.
- Vibration – A noise & vibration Management Plan (HTR-RHD-P2-RE-W-017) which will state monitoring will only take place when there is a significant risk of vibration to receptors.
- Dust – a Dust Management Plan (HTR-FUW-P2-RE-PL-W-0517) will be produced detailing the control measures in place. This will include speed limits and dampening down of haul roads via water bowser. Water will be taken from settlement ponds on site.
- Silt/Water management – a temporary watercourse diversion will be installed with the inclusion of a minimum of two settlement ponds to allow water to settle prior to leaving site. This will also include the introduction of silt fencing, checks dams and other methods to slow down the water to allow settlement. A water quality management plan (HTR-FUW-P2-RE-EN-W-0014) will be produced which will include the monitoring regime of silt within the watercourse and use of flocculent where required. This will be discussed with the EA prior to use. All works will be in accordance with the CEMP
- Site Waste Management – a Site Waste Management Plan (HTR-FUW-P2-RE-RM-W-0008) will be produced for the site listing all activities producing waste. A Materials Management Plan (MMP) will also be produced detailing where all the material will be excavated from and used within the embankments.
- Fish – a Fish management Plan will be produced, and precautionary methods of works completed prior to any clearance. Ecologist will be on site during all clearance of existing ditches and any waterbodies. Where required a fish licence will be applied issued for any translocation.
- Refuelling – All plant and equipment will be refuelled in designated re-fuelling areas or via a tractor & bowser. All refuelling to be a minimum of 10m away from any watercourse. Refuelling to be completed by competent and trained operators. Spill kits available at all refuelling areas. TBT and spill kit training will be provided prior to works commencing.

10. Archaeology

- 10.1 All works will be completed in line with the Archaeological Management Plan (HTR-ECU-RZ-ZZ-PL-X-0001) and Written Scheme of Investigation (HTR-ECU-

RZ-ZZ-PL-X-0002). This will be reviewed and accepted by the county archaeologist ahead of any stripping works.

11. Quality

- 11.1 **Construction Engineer** – Prior to works commencing, all design, specifications, inspection & tests plan will be reviewed by the construction engineer.
- 11.2 **Inspection & Test Plan** -an inspection & test plan will be produced prior to works commencing. This will detail all relevant checks, inspections and testing required at different stages of the works. Quality assurance form will be created and reviewed by all parties. The ITP will outline the testing frequency and method of recording/storage of information and responsibility for checks, witnessing and inspection between all parties. The ITP will be agreed prior to works commencing.
- 11.3 **Checklists** – The ITP will identify how quality checks will be managed. For site construction activities, this will be predominantly via the use of inspection checklists. The checklists will be produced as works commence (as outlined in the Quality Plan) and the engineer will cross check elements of the work for testing or inspection as outlined in the ITP. These will be informed to the client as Hold-Points so that works can only progress once an item has been checked.
- 11.4 **Testing** – a site testing lab will be set up on site and certified by UKAS. This will enable earthwork materials testing to be completed on site. All labs and technicians will be trained and certified to UKAS standards.

12. Methodology

Activity	Reservoir – Dual Pipeline
Description	
The Reservoir Pipeline will be comprised of a fill and extraction pipe as a “Dualpipeline”. Both pipes will terminate at Bedhampton at one end and the reservoir at the other. The DualPipeline will be constructed in two parts. The section between Bedhampton Pumping Station and the boundary of the main reservoir is to be completed as part of a separate scheme, delivered by Ward & Burke. The second section, within the Main Reservoir site, will be completed by Future Water. The Dualpipeline within the Main Reservoir Site will carry the inlet pipe, from a reception pit 10m inside the site, along the south western edge of the main embankment, through the main embankment at high-level and into the main body of the reservoir. The inlet pipe will be buried, installed by open-cut excavation between the reception pit and the embankment. The pipe will be buried within the main reservoir using the same technique to the low water line. Open cut excavation will be carried out using tracked excavators opening a trench, 1-3m deep and 1.2-1.5m wide. Shoring will then be installed in line with the Temporary Works Design. Once shoring is installed, pipe bedding will be laid and then the pre-fabricated section of pipe. Process repeated until length is complete. The line and extent of the pipe will be excavated to formation between the location at the site boundary (red line) and its upstream end at the reservoir. The pipe will be installed in the excavated trench in appropriate prefabricated lengths with engineered pipe surround. The pipe will be backfilled, post installation and will be landscaped as part of the phase 6 works. Once installed, the pipe will be tested for its installed length pending commissioning.	
Welfare Provision	Main project accommodation and satellite compounds
Plant & Equipment Employed	
Tracked excavators – varying in size from 8t to 21t	
9t cabbed swivel dumpers	
Various lifting equipment – chains, slings, skips, lifting beams	
Telehandlers and forklift	
Lorry mounted crane	
Temporary excavation support systems – boxes, sheets and frames	
Edge protection systems	