Adams Hendry Consulting Ltd
Sheridan House
40-43 Jewry Street
Winchester
SO23 8RY

T 01962 877414
www.adamshendry.co.uk

Email:
a.blaxland@adamshendry.co.uk
Our Ref:
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JTM/1856

Narinder Lakhan
Development Management Team
Havant Borough Council

By Email Only

7th August 2023

Doc. Ref: HTR-FUW-EM-ZZ-PT-W-509-S5

Dear Mr Lakhan

Application APP/20/0990 - Havant Thicket Reservoir
Application to Havant Borough Council for approval of a Non Material Amendment

Further to our previous discussions and pre-application advice, please find enclosed with this letter an application for approval of a Non Material Amendment. The application is submitted on behalf of Portsmouth Water by Future Water, the contractor appointed for the construction of the reservoir. The application is submitted through the Planning Portal (reference PP-12303220) and the application comprises:

- This Covering Letter
- Non Material Amendment Application Form
- Illustrative Plan 1 - Strategy Plan
- Illustrative Plan 2 – Sections through embankment
- The application fee (£234) paid through Planning Portal

A duplicate application has been submitted to East Hampshire District Council.

Background to the Non Material Amendment

As part of the preparation of Future Water's detailed design for Havant Thicket Reservoir (HTR), reserved matters approval and planning conditions discharge needs to be secured from the relevant LPAs for the various phases of construction.

Future Water's detailed design is based on the outline design work undertaken by Portsmouth Water to secure the hybrid planning permission. The more detailed engineering and design work undertaken by Future Water includes some design evolution, and it is this that is the subject of this non material amendment, under the following headings.

1. Main reservoir embankment earthworks

As part of the detailed design of the main reservoir embankment, the design has evolved from that approved as part of the hybrid planning permission, both as a result of knowledge and experience gained from further intrusive investigations on site, the construction of the trial earth embankment, and from more detailed engineering design work. The detailed design and construction methodologies have also been reviewed to ensure safe working areas for construction, whilst ensuring sufficient stand-off space from retained Ancient Woodland.

The consequence of the above, is that the detailed design for the main reservoir embankment will propose a change from the outline design in a number of respects. The changes relate to the southernmost embankment, as summarised as follows:

Revised southern embankment position:

- southern (external) toe moved further north near to the retained Ancient Woodland (away from the woodland by up to 19m – maintaining minimum 25m separation from the ancient woodland), and extended south in the south-west corner (to the west of the culvert and control house location)
- northern (internal) toe moved further north as a consequence of the above by a variable distance
- crest moved further north by up to 45m and extended in length to apprximately 2,830m

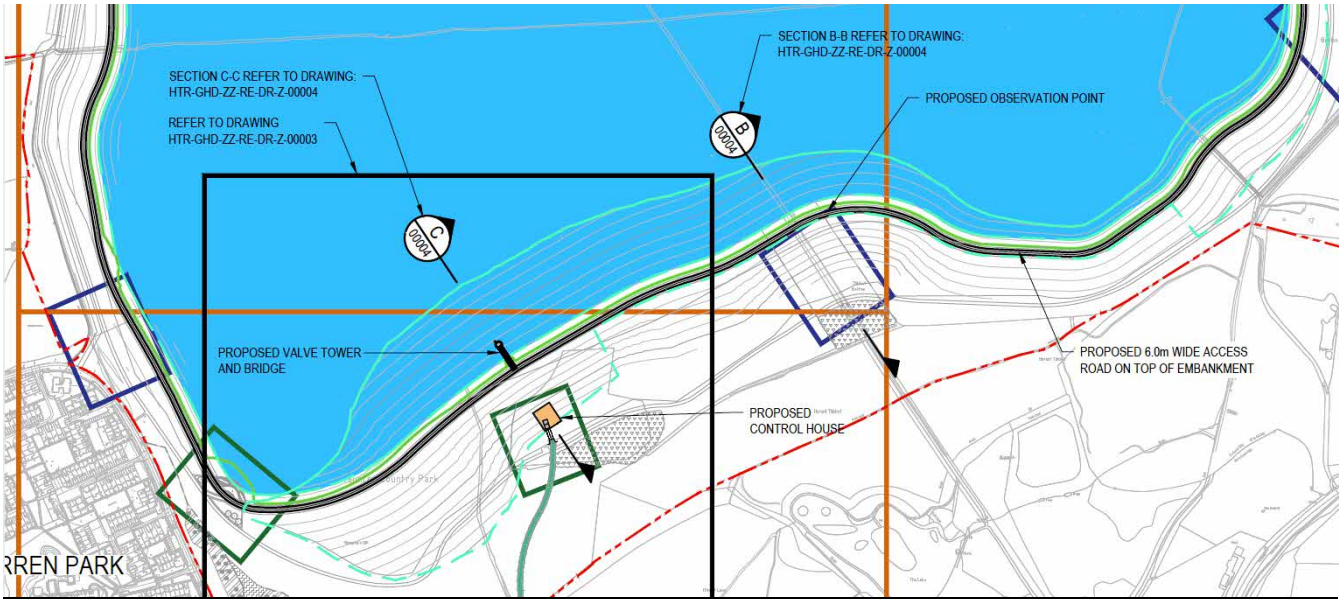
Slight increases to excavation and embankment earthworks volume, and small reduction in reservoir capacity but minimum capacity maintained at above 8,700 Million litres

The embankment profile / gradients (both internal and external faces) remain as per the Hybrid permission (1:5 to 1:7 slopes)

In addition, as a result of the proposed earthworks embankment changes, other consequential changes will arise, with the location of the Valve Tower, Control House, Avenue Staircase and Viewing Platform moved to the north (by virtue of the embankment moving north).

The Figure below provides an illustrative update to the Planning Strategy Key Plan approved as part of the Hybrid permission, with the extract focused on the southernmost embankment to illustrate the design evolutions identified above. A full copy of the updated Planning Strategy Key Plan is available as separate Plan 1 enclosed with this letter.

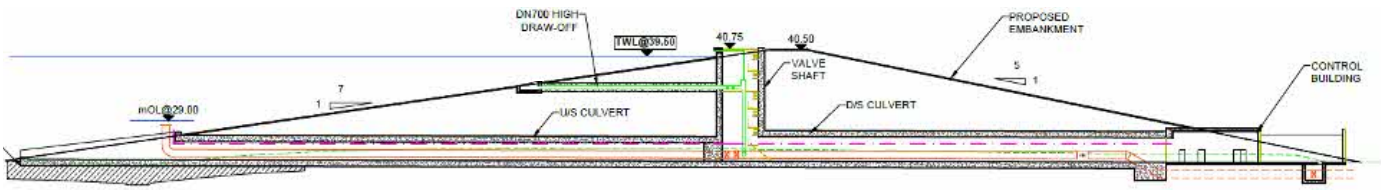
Extract from Illustrative Planning Strategy Key Plan to show design evolutions



2. <u>Reservoir culvert, valve tower and bridge</u>

The outline design, which was the basis for the Hybrid planning permission secured the location of the reservoir culvert beneath the southern reservoir embankment, with the valve tower itself located within the embankment earthworks. An illustrative cross section through the southern embankment at the time of the Hybrid planning application showing the reservoir culvert, valve tower and control house is provided in the figure below.

Location of Culvert, Valve Tower and Control House in Hybrid Permission

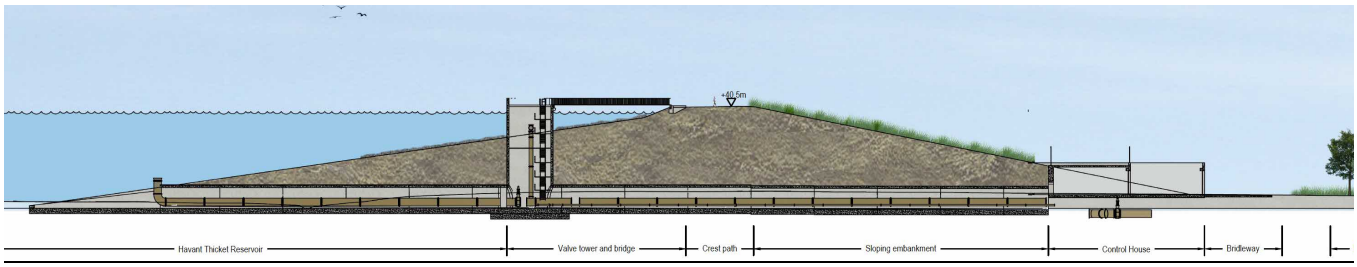


As a result of the main reservoir embankment design evolution (referred to above), the whole of the reservoir culvert and valve tower need to move to the north, as the main reservoir embankment moves to the north.

In addition, as part of the detailed design of the reservoir culvert and valve tower, the design has evolved from that approved as part of the hybrid planning permission, as a result of knowledge and experience gained from the construction of the trial earth embankment, and from more detailed engineering design work. The most notable proposed design evolution is for the valve tower structure to be moved further to the north, outside of the core of the reservoir earth embankment but still within the embankment. This results in the valve tower becoming a more visible structure within the reservoir, albeit one that is seen in the context of the nearby main reservoir embankments. As part of the valve tower will be a structure within the water of the reservoir, there will also be a need for an operational pedestrian bridge to be provided between the crest of the embankment and the valve tower, for operational access for inspection and maintenance. This pedestrian bridge would not be open to public access, and suitable safety gate and fencing will need to be designed into the structure for health and safety reasons.

The consequence of this design evolution can be seen in the Figure below, which provides a cross section through the proposed embankment to illustrate the location of the reservoir culvert and the valve tower and related bridge. It can be seen that as a consequence of the main reservoir embankment moving to the north, and the design evolution for the reservoir culvert, the valve tower moves approximately 48m to the north.

Revised proposed location of Valve Tower and bridge



Plan 1 attached provides an illustrative update to the Planning Strategy Key Plan approved as part of the Hybrid permission showing the valve tower and bridge as propsoed through design evolution. In addition, Plan 2 provides illustrative cross sections through the embankment, including the valve tower and bridge.

Assessment of the non material amendments

A review against the matters approved under the Hybrid permission has been undertaken, as set out in the table below.

Hybrid Permission	**Design evolution proposals**
Reservoir capacity	
Minimum required total capacity 8,700 Million litres	Total capacity reduced but minimum capacity maintained at above 8,700 Million litres. Top Water Level maintained at 39.5m AOD.
Maximum capacity: at least 9,600 Million litres, up to a Top Water Level (TWL) of 39.5m AOD	
Embankment	
Maximum height 20m	No change
Crest level 40.5 AOD	No change
Length 2,770m	Increased to 2,830m
Inside slope: to range from 1:5 to 1:7	No change
Outside slope: majority 1:7 with local variations to 1:5 at Round Wood and the Avenue Woodland (see below)	No change
Outer toe (edge): +/- 2m horizontal range (north to south)	Embankment moved on average up to 19m to the north, but protective distance to retained Ancient Woodland maintained
Crest line position: 0-37m horizontal range (to north) to accommodate any potential future need for reducing the outer face slope from 1:5 to 1:7	Embankment moved by up to 45m
Embankment adjacent to Staunton Country Park	
Toe (edge) of the embankment is fixed at a minimum of 25m from the edge of woodland along the southern boundary of the site (known as Hammond's Lands Copse)	No change - minimum 25m from woodland maintained
Length of embankment at 1:5 is approximately 185m along this stretch and 390m of embankment with slope varying from 1:5 to 1:7.	No change
Staircase detail along alignment of The Avenue joining pedestrian access from Staunton Country Park with viewing area at the crest	Staircase detail same. Staircase location changed (moved north due to embankment moving north)

From the above, the main reservoir embankment design evolution proposes changes to the precise details of various matters, some fixed and some outline. The scale of the changes is limited when seen in the overall context of the reservoir development as a whole.

On the basis of the work undertaken to date, Future Water is confident that it is unlikely that the detailed design would give rise to new or materially different significant effects on the environment from those previously assessed as the changes remain within the worst case assessed in the original Environmental Statement. There will be further and more detailed assessments of the environmental effects of the detailed design, as part of the application for approval of the Reserved Matters and applications to discharge planning conditions for the reservoir phases.

In relation to the valve tower and pedestrian bridge, whilst the design evolution to the reservoir culvert and valve tower results in the valve tower structure and related pedestrian bridge becoming a more prominent feature than was proposed under the Hybrid planning permission, this is a necessary consequence of the

more detailed engineering design work undertaken for the reservoir by the appointed contractor, and necessary for engineering design and health and safety reasons. They are inter-related and dependent on each other – one is not required without the other. Future Water considers that the design evolution relating to the valve tower and bridge remains within the worst case assessed in the Hyrbid Planning Permission Environmental Statement and it is unlikely that the detailed design would give rise to new or materially different significant effects on the environment from those previously assessed.

Whilst the valve tower structure and related pedestrian bridge would be a more prominent feature than previously proposed, the feature is located within a localised area within the overall reservoir scheme, and would be seen within the context of the nearby main reservoir embankment. A valve tower such as this, where the top part (approximately 2.5m inclusive of 1.2m high safety rails) extends above the top water level is a common operational feature within the open expanse of open water within the reservoir.

Both the valve tower and related pedestrian bridge must fulfil the operational and health and safety requirements that they are designed for, and so they have a functional design. There is however, the opportunity to consider and include engineering and architectural detailing to both the valve tower and pedestrian bridge external appearance, and select appropriate facing materials such that they become well designed features within the overall context of the reservoir, and this can be secured through the Reserved Matters approval.

Confirmation of the Non Material Amendment sought

On behalf of Portsmouth Water, Future Water formally request the approval of the local planning authority for a non material amendment to the Hybrid Planning Commission comprising:

Revised southern embankment position:

- southern (external) toe moved further north near to the retained Ancient Woodland (away from the woodland by up to 19m – maintaining minimum 25m separation from the ancient woodland), and extended south in the south-west corner (to the west of the culvert and control house location)
- northern (internal) toe moved further north as a consequence of the above by a variable distance
- crest moved further north by up to 45m and extended in length to apprximately 2,830m

Slight increases to excavation and embankment earthworks volume, and small reduction in reservoir capacity but minimum capacity maintained at above 8,700 Million litres

Relocation of the valve tower approximately 48m north, and incorporation of a pedestrian bridge between the embankment and the valve tower structure

The embankment profile / gradients (both internal and external faces) remain as per the Hybrid permission (1:5 to 1:7 slopes)

The details of the changes will be incorporated within the Reserved Matters submissions for the phases of the reservoir development.

It is not considered that there is a need to change the description of development to incorporate the valve tower and bridge as they fall within the "*and associated works*" in the approved development description.

I would be grateful for the local planning authority's approval of the non material amendment application at the earliest opportunity.

If you have any queries on the application or require any additional information, please contact me on 07919 486420 or a.blaxland@adamshendry.co.uk

Yours sincerely

[redacted]

Andy Blaxland
Director

Cc: Portsmouth Water
Atkins
Future Water JV