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RACTON BOOSTER STATION-PLANNING, DESIGN AND ACCESS STATEMENT (PDAS)

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Racton Booster Station- Planning, Design and Access Statement (PDAS)

Trant Engineering

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1.0

AtkinsRéalis - Baseline / Référence

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1. Introduction

1.1 Purpose of this document

This Planning, Design and Access Statement (PDAS) has been prepared in support of the application for full planning permission for the proposed development of a water booster station in Havant, submitted to Havant Borough Council (HBC) as the relevant local planning authority (LPA).

This PDAS outlines the context and need for the Scheme, describes the design and explains the design rationale, and presents a detailed appraisal of the relevant national and local planning policies, guidance and material considerations.

1.2 Planning application

On behalf of Trant Engineering, AtkinsRéalis is seeking full planning permission for the installation of a new water booster station to connect to Portsmouth Water's (PW) water pipeline system, in order to safeguard their pressurised water supply network.

The application is submitted to HBC for determination under the Town and Country Planning Act 1990.

The Scheme is considered to be 'minor development' as a result of the application site not exceeding 1 hectare.

1.3 Content of the application

In preparing the content of the submission package reference has been made to the national mandatory drawing and document requirements for full planning applications, as well as the relevant section of the HBC Local Requirements List.

The following documents have been submitted in support of this application for planning permission:

- This Planning, Design and Access Statement (including appended Noise Baseline Report).
- Flood Risk Assessment (FRA).
- Ecological Impact Assessment (EcIA).
- Arboricultural Impact Assessment (AIA).
- Biodiversity (BNG) Feasibility Report.
- Biodiversity Metric Information.
- Covering letter.
- Completed planning application form.
- Ownership Certificate and Agricultural Land Declaration.

Table 1-1 lists the drawings submitted in support of this application for planning permission:

Table 1-1 – Application Drawings

Drawing Title	Drawing Number	Revision Number
Location Plan	S847.11-IDS-PW-RT-DR-C-0010	P04
Existing Site Plan	S847.11-IDS-PW-RT-DR-C-0011	P04
Proposed Site Plan	S847.11-IDS-PW-RT-DR-C-0012	P04
Equipment Building Layout Plans	S847.11-IDS-PW-RT-DR-C-0013	P03
Proposed Building Elevations	S847.11-IDS-PW-RT-DR-C-0015	P02
Proposed LGV Vehicle Access-Egress	S847.11-IDS-PW-RT-DR-C-0016	P02
Proposed HGV Vehicle Access-Egress	S847.11-IDS-PW-RT-DR-C-0017	P02
Proposed Equipment Building Sections	S847.11-IDS-PW-RT-DR-C-0018	P01
Proposed Site Compound – Phase 1	S847.11-IDS-PW-RT-DR-C-0071	P01
Proposed Site Compound – Phase 2	S847.11-IDS-PW-RT-DR-C-0072	P01
Proposed Permanent Works Footprint	S847.11-IDS-PW-RT-DR-C-0073	P02
Landscape Proposals Plan	5227179-ATK-XX-XX-DR-L-1000	P05
Tree Protection Plan	RPS-ATR-XX-XX-D-O-401000	P01
Proposed Surface Water Sewer Connection Plan	S847.11-IDS-PW-RT-DR-C-0019	P01

2. Scheme background

2.1 Need for the Proposed Scheme

Portsmouth Water (PW) are looking to identify ways in which they can improve future resilience of drinking water supplies for the communities they provide water to. As part of this, a new water booster station is required to provide PW with the ability to transfer flow from Farlington Reservoir to Racton Reservoir. This will directly improve supply resilience within the local neighbourhood (Racton Reservoir supplies customers within the Emsworth, Havant and Leigh Park Area) and provides further safeguarding of supplies to over 50,000 people across Hampshire and West Sussex.

As such, the scheme consists primarily of a water booster station building that will connect to PW's existing water pipeline system, to safeguard their pressurised water supply network. The project will form a key part of PW's Water Resource Management Plan, which holistically looks at how supplies are managed across our entire region.

Due to projected population increases, this new water transfer booster station will also assist with the increasing demand for potable water supply across Havant and more widely, Hampshire and West Sussex. New housing, such as the substantial Southleigh Road development, will rely on Racton Reservoir for their supply, therefore enabling PW to meet demand increases such as these.

The National Policy Statement for Water Resources Infrastructure (April 2023) recognises the immediate need to build resilience in the water sector to address pressures on water supplies owing to population growth, the impacts of climate change and the need for sufficient water in watercourses to enhance biodiversity and protect the environment. The Scheme is an integral part of this strategy, as it will contribute towards delivering resilient water supplies to homes, businesses and public services across the whole region, ensuring greater preparedness for future population growth.

The Racton Booster Station project has no connection to either the new Havant Thicket reservoir or the Hampshire Water Transfer or Water Recycling Project and is primarily focused on water network resilience.

2.2 Pre-application and public consultation

2.2.1 Pre-application advice

A request for pre-application advice was submitted to Havant Borough Council on 13 August 2019. The request sought advice on the proposed Scheme design. The request also set out the proposed scope of the planning application, including supporting drawings and assessments.

The request for pre-application advice was accompanied by:

- A location plan.
- An existing site plan.
- A proposed site plan.
- Two option drawings for the proposed booster station building, for both a pitched roof and a flat roof.
- An environmental constraints report.

- A flood risk assessment technical note.

A pre-application enquiry response was received on 27 September 2019 from HBC (For reference: GEN/19/00668). The response covered the following key topics:

- The principle of development.
- Impact on the area's character and appearance, including trees.
- Impact on neighbouring property amenities.
- Highway matters.
- Flood risk.

The response noted the principle of development in the context of the area in which the Scheme sits. The response also noted that the policies in the Pre-Submission Havant Borough Local Plan 2036 would be a material consideration in the determination of the planning application. However, it is noted that this draft planning policy update has since been withdrawn.

HBC's response also referenced the impact on the character and appearance of the area as a significant concern due to the site's visibility from public realm and the surrounding level changes. The response suggested understanding the minimum size requirements for the proposed booster station, as well as recommending landscaping around the proposed building to soften its visual impact on both the immediate and surrounding areas.

The pre-application response recommended a full arboricultural impact assessment and tree protection plan to support the planning application.

The response also noted the potential impact on amenities of neighbouring properties, with reference to potential noise impacts. HBC noted a requirement to confirm that the pump and plant machinery used in the development will not produce adverse noise affecting nearby residential receptors. The response suggested that an acoustic noise assessment may be necessary to determine if mitigation measures are needed. However, the response also noted that in case such an assessment is not provided, a Grampian-style condition could be used upon granting the planning application. This condition would require an acoustic assessment showing that the rating level of any plant & equipment, as part of this development, will be at least 5dB below the existing background levels.

HBC also raised highway matters in their response due to the proximity of the site to the junction of Stockheath Lane and New Road. HBC emphasised the need for careful consideration to ensure that vehicle movements (entering, exiting, and manoeuvring) will not adversely affect the safety and flow of the highway network. The response advised that given the site's proximity to a busy junction, the Scheme's traffic activities should be managed in a way that maintains both safety and the free flow of traffic in the area.

The response noted that, regarding flood risk, the site has been selected due to its location in Flood Zone 1, which represents a low flood risk area. This choice was made in contrast to an initial site that posed a higher flood risk to the west of the site.

The full pre-app response is appended to this PDAS.

2.2.2 Public consultation activities

2.2.2.1 Public engagement strategy

The public engagement strategy for the Scheme centred on ensuring that all residents within an agreed area in proximity to the Scheme would be made aware of the proposed development and would be provided the opportunity to provide comment on the proposals.

The key stakeholders were identified as:

- Local residents.
- Local businesses.
- Non-statutory consultees (i.e. Voluntary, Community and Social Enterprises (VCSEs)).
- Vulnerable/sensitive groups.
- Statutory consultees (political / local authority).

In terms of the ways in which stakeholders were given key Scheme information and opportunities to provide comment, PW hosted an online portal to upload key documents and provide an area for residents and stakeholders to give feedback/answer a questionnaire to gain feedback about the development.

The AtkinsRéalis Public Engagement team produced a leaflet which set out the key Scheme information, including its location, the reasoning behind the Scheme and how the Scheme will improve the future water supply resilience in Havant. A feedback form was appended to the leaflet, giving the recipients the opportunity to provide comment. These leaflets were posted to 108 residents and stakeholders in proximity of the Scheme, the extent of which was agreed between PW and the AtkinsRéalis Public Engagement team prior to the production of the public engagement material.

The breakdown of the 108 residents and stakeholders who were consulted is:

- 101 residents.
- Trosnant Infant School.
- Trosnant Junior School.
- Bidbury Infant School.
- Bidbury Junior School.
- South West Trains Ltd., Bedhampton Railway Station.
- South West Trains Ltd., Havant Railway Station.
- Kwikfit Havant.

Other public premises such as GP surgeries and dentists were considered but were not deemed to be in close enough proximity to the Scheme, so these were discounted.

The consultation was undertaken during the development of the design, to ensure that public comments could be considered and used to shape the proposals prior to the submission of a planning application. The details and images of the proposed design and layout shared in the consultation leaflet reflected the early design.

2.2.2.2 Consultee responses

15 written responses were received from a total of 108 who were consulted, which totals a 14% response rate (excluding councillors). The following details a high-level breakdown of the nature of the responses regarding whether the consultees agreed or disagreed with the Scheme:

- 3 agreed (2.8%).
- 3 neutral (2.8%).
- 3 strongly agree (2.8%).
- 6 strongly disagree (5.6%)

Regarding those who strongly disagreed, all but one of these responses were located closest to the proposed booster station. PW responded with further information to all residents but did not receive further replies from the consultees.

2.2.2.3 Portsmouth Water Responses to consultees

As outlined above, PW produced responses to residents and stakeholders who voiced concerns over the Scheme. A summary of these responses is provided below:

Table 2-1 - Responses to consultee comments

Topic	Portsmouth Water response
Impact on wildlife	We appreciate there will be a loss of grassland and a small section of the hedgerow due to the development. However, we can reassure you that as part of these plans we have committed to delivering a biodiversity net gain. This means the biodiversity of the local area will, in fact, improve as a result this work. For example, we will install a Grasscrete paving system where possible, to minimise the loss of permeable surface area. With regards to wildlife, we will be planting new trees and replacing the current area of grassland with a variety of wildflowers which will be maintained by our teams.
Building Size	We've designed the size of the building so it can offer safe access to a pump, along with associated control panels and power ancillaries. We fully appreciate the fact it sits within a residential area and have chosen the style of the building to reflect this, including adding a pitched roof so that it is in-keeping with others on the same road.
Maintenance and Parking	A roller shutter door is required to enable the pump to be accessible, both during its installation and for any future maintenance. The layby is necessary to accommodate an operative's vehicle when completing routine maintenance.
Why does the pumping station have to go in the location shown?	The position of any pumping station depends a great deal on the location of the related underground pipework. The booster station will take water from an existing pipe from Farlington reservoir and boost water back into the pipe network where it will travel to Racton. This allows us to have the best possible pumping set up in place to move water efficiently and effectively and has been verified by hydraulic modelling. The land to the west of Stockheath Lane was hydraulically viable, but due to the Hermitage Stream being nearby, representing an increased risk of flooding, this location was ruled out. This was verified by an independent specialist who attained this data from the Environment Agency and will form part of the planning application.

Power Supply	The power supply will enter the booster station via a Glass Reinforced Plastic kiosk sited adjacent to the main building. This estimated size of this kiosk is 2.8m x 3.1m and 2.3m high.
Land Amenity	There are no current plans to fence off the entire site boundary, meaning it will still be accessible.
Noise/Vibration	We have completed baseline ambient noise surveys to understand the current background noise levels. At this stage, we cannot confirm the exact level of additional noise and vibration the station may produce; however, this will be worked through as we develop the detailed design should our application be granted by Havant Borough Council. As part of this design process, we will develop measures to mitigate additional noise and vibration where needed, such as installation of acoustic boarding inside the building and acoustic attenuation to dampen noise.
Dust	During construction, measures will be in operation to supress dust that may occur, particularly during drier conditions. Typically, this will include a wheel wash and use of water during certain activities such as cutting building materials.
Farlington to Racton Main	Farlington feeds multiple supply zones, one of which is a trunk main to the Racton supply area. The purpose of this project is to allow a greater volume of water to pass from Farlington to the Racton zone over a shorter period. This will allow us to meet demand in the Racton area at times when it is higher, or if essential maintenance is required throughout our network.
Water resilience	Whilst here at Portsmouth Water, we've historically enjoyed a plentiful supply of water, our rapidly growing population and less predictable climate, means this is changing. Our region is now classified as 'water stressed' by the Environment Agency and we need to ensure enough water is kept within the environment to feed the precious chalk streams in our supply area. We have a duty to preserve them and protect the biodiversity that surrounds them. We've developed an ambitious plan to ensure that, despite these challenges, our customers will continue to receive a high-quality, reliable and affordable supply of water. It will include installing smart water meters to help us all use water more wisely, reducing leaks and developing Havant Thicket Reservoir – the first major UK reservoir in over 30 years.
Internal Workings of the building	We've designed the size of the building so it can offer safe access to a pump, along with associated control panels and power ancillaries required to run it. A roller shutter door is required to enable the pump to be accessible, both during its installation and for any future maintenance. The layby is necessary to accommodate an operative's vehicle when completing routine maintenance.
Vandalism	You make very valid points with regards to the risk of vandalism, and this is something we take very seriously as a company. As a Portsmouth Water-owned building, we will be regularly monitoring this site for signs of anti-social behaviour. If any vandalism does occur, this will be promptly removed and dealt with by our team and reported to the police.
Leaks in the road	The position of any pumping station depends a great deal on the location of the related underground pipework. The booster station will take water from an existing pipe from Farlington reservoir and boost water back into the pipe network where it will travel to Racton. This allows us to have the best possible

	pumping set up in place to move water efficiently and effectively and has been verified by hydraulic modelling. The project will involve the installation of new equipment that will be tested on completion of the installation and any defects found will be immediately rectified before the site is commissioned into service. Therefore, we do not anticipate there being any increased risk of leakage.
Blocking Access	Our staff would visit the site on a weekly basis under normal operation. This would be in a standard sized van, and on-site parking will be incorporated so no disruption would be caused to residents.
Roadworks/disruption	We can confirm that no roads will be closed as a result of the scheme. The footpath that creates a shortcut from Stockheath Lane to Trosnant Road will be maintained and open throughout. The footpath adjacent to New Road (to the south of site) may have a small diversion for a short period of time. This is to enable the booster station pipework to be connected onto the main. The site set up will all be contained on the parcel of land. There are no works to take place that would affect the above. Once we have chosen a contractor to deliver the scheme, we will work closely with them to minimise impact of deliveries on residents during construction.
Construction Noise	As with any construction site, there will be some noise while works take place. However, we will carefully manage this to ensure that any disruption to residents is kept to a minimum. Working hours will be between 8am and 5pm Monday to Friday.
Drop Kerb Location	The layby which cuts into the land, not Brookfield Close, is to accommodate an operative's vehicle when completing routine maintenance. The dropped kerb will only be installed in-line with all relevant highway's legislation.

3. Site and Environmental Context

3.1 Site location

The site is located approximately 2.4 km to the east of junction 5 of the A3(M). The approximate Ordnance Survey National Grid reference at the centre of the site is 471150, 106833, and the What3Words address is rewarding.rents.leans. The site, delineated by the red line boundary in Figure 3-1 below, is located in the HBC authority area.

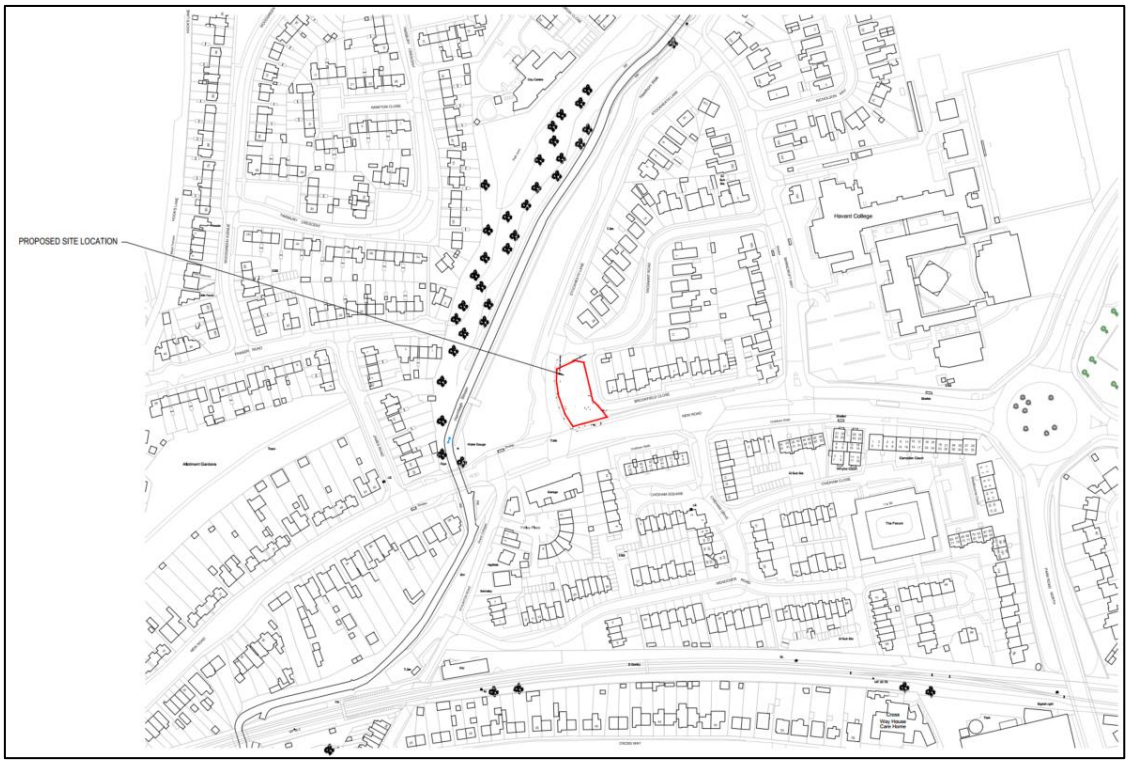
Havant has strategic transport links to London and Southampton via the A3(M) and the M27 respectively. Havant is served by a railway station that provides direct services to destinations including London, Portsmouth, Southampton and Brighton.

3.2 Site description

The site is an area of green space in the town of Havant, located approximately 650 m northwest of Havant Railway Station. The site is a rectangular area of land amounting to approximately 0.1 hectare, with New Road in the south, Stockheath Lane in the east and bordered by Hermitage Stream to the west. The site is approximately 510 metres (in aerial distance) to the north of Portsmouth Water Utilities, West Street, Havant.

The site is a greenfield site, largely consisting of a flat grassed area, raising slightly from the east pedestrian path to a plateau in the centre of the site. To the east perimeter is an established mixed species hedge mainly consisting of Hawthorn at approximately 3.5m in height, and on the west perimeter is an established Alder tree.

Figure 3-1 – Site Location



3.3 Spatial and environmental profile

The site is located in a largely urban setting. To the west of Stockheath Lane is an area of green space associated with Hermitage Stream and Hawthorn Walk, with the stream being located 50 m to the west of the site.

The site falls in the South Coast Plain National Character Area (NCA). Each NCA represents an area of distinct and recognisable character at the national scale. This designation is a flat, coastal landscape with an intricately indented shoreline lying between the dip slope of the South Downs and South Hampshire Lowlands and the waters of the English Channel, Solent and part of Southampton Water.

The site lies adjacent to coastal and floodplain grazing marsh priority habitat. These habitats serve as critical components of the local ecosystem, providing crucial flood regulation, biodiversity support, and recreational opportunities for residents.

The St Faith's Churchyard Site of Importance for Nature Conservation (SINC) is located 785 m southeast of the site. The SINC has been designated as the churchyard contains herb-rich semi-improved grassland of a good age in an urban environment, with the grassland diversity increasing in areas where mowing is relaxed. This SINC is separated from the site by roads as well as residential and commercial properties

The site lies wholly within Environment Agency Flood Zone 1, which means the site has less than a 0.1% annual probability of river or sea flooding. The site is, however, located adjacent to Flood Zones 2 and 3. Hermitage Stream, as an inland river within Havant Borough, plays a vital role in maintaining local hydrology. Its preservation is integral to maintaining biodiversity and ensuring the resilience of the surrounding landscape.

The nearest heritage designations to the site are the two Grade II listed buildings located on West Street, approximately 400 m to the south of the site.

3.4 Site surrounding context

The site is predominantly surrounded by residential properties and the public highway. Hermitage Stream is located approximately 50 m to the west of the site. The area of green space to which the site relates continues slightly north of the northern boundary of the site.

Havant Rugby Club is located approximately 300m to the west of the site, whilst Havant Hockey Club is located approximately 300m east of the site at Petersfield Road Recreation Ground. Havant College is located adjacent to Havant Hockey Club.

There are various businesses located on New Road to the south of the Scheme, including a tyre shop and various convenience stores. New Road is also on the route of local bus services that provide access to Havant town centre, Leigh Park and Southsea.

Figure 3-2 - Proposed Site Surrounding Context

A. 10 Hooks Lane Recreational Ground
B. Priority Habitat Flood Zone 3
C. Hermitage Stream Inland River
D. Residential Cluster off Brookfield Cl and Trosnant Road
E. HSDC Havant College
F. Petersfield Road Recreational Ground

3.5 Site History

The development history of the site and the immediate surrounding area (within 250 m of the site) has been reviewed and summarised below:

3.5.1 On Site

The earliest mapping available for review is dated 1870 and shows the site to comprise undeveloped agricultural land. Hermitage Stream is shown to be present crossing the western part of the site flowing south on a north to south orientation. The Stockheath Lane is shown orientated north to south in the east of the site. The site remains largely unchanged until 1954, showing Hermitage Stream in its present-day location adjacent to the western site boundary.

3.5.2 Off Site

The earliest mapping available for review is dated 1870 and shows the surrounding area to comprise predominantly undeveloped agricultural land. The London to Brighton South Coast Railway Line is present approximately 180 m south of the site. A map from 1897 shows excavations labelled as ‘Old Brick Field’ and an ‘Old Kiln’ approximately 200 m southeast of the site and an un-named road, in the same alignment as the present-day New Road is shown in the south of the site. By 1954, significant residential development

had been constructed within 50 m of the site to the south and west. The map from 1963 shows the surrounding area to be in its present day setting with residential development surrounding the site.

3.6 Planning History

The planning history search has been undertaken using Havant Brough Council's planning register and is summarised in Table 3-1. There is no planning history within the site red line boundary, so a review of recent planning history in the immediate surroundings of the site has been undertaken.

Major planning applications in the wider vicinity of the site have also been considered.

Table 3-1 – Planning History

Planning application reference	Description of Development	Decision and Date
APP/24/00405	Pipeline from the reservoir to the north of Middle Park Way to Bedhampton Pumping Station, Meyrick Road, Havant	Registered on 17/06/2024
06/71359/000	Pre-cast concrete shed to rear of 1 Brookfield Close	Granted Permission on 25/08/2016
APP/16/00622	Demolition of existing single storey side extension and proposed construction of a two storey side and rear extension	Granted Permission 02/09/2016

Source: Havant Borough Council

4. The Proposed Scheme

4.1 Description of the Proposed Scheme

The Scheme consists primarily of a water booster station building that will connect to PW's existing water pipeline system in order to safeguard their pressurised water supply network. The proposed water booster station building will be 81.65m^2 in area. The proposed booster station comprises a plant room housing a floor mounted pump, and a control room housing a motor control centre (MCC), together with a separate kiosk housing a bespoke, new electricity substation.

The building housing the proposed water booster station will be approximately 10m long and 10m wide. The maximum height of the building will be 6.2m (north elevation) to 5.25m (south elevation) to the top of the pitched roof. The proposed building will have a tiled pitched roof and will be constructed of brick to match the existing surrounding buildings.

A summary of the proposed equipment to be housed at the proposed water booster station includes:

- Floor-mounted pumps and associated pipework.
- Electrical equipment cabinets.
- Electricity substation kiosk.
- High level extraction fans.
- Air vents and non-powered louvre panels.

The Scheme includes an area of proposed "Grasscrete" hardstanding to the east of the proposed water booster station building, to allow for sufficient access in the event that HGVs and other maintenance vehicles require access to the site.

The Scheme also includes a number of proposed ancillary items on the site, including:

- 1m high removable bollards.
- Two surface water drainage chambers.
- Two Washout chambers.
- Five surface boxes for buried valves.
- One actuated bypass chamber.
- One flow meter chamber.

The Scheme includes landscaping proposals as part of the design, comprising proposed species-rich grass and proposed species-rich native hedgerow which will partially screen the proposed water booster station. Four trees are also proposed to be planted, two of which are to be located in the centre of the site, and two are to be located towards the south of the site.

Figure 4-1 below displays the proposed Scheme layout.

Figure 4-1 - Proposed Site Plan

4.2 Environmental impact assessment (EIA)

The Scheme does not fall within any of the categories listed within Schedule 1 of the Town and Country Planning (Environmental Impact Assessment) (England) Regulations 2017 (as amended) (the EIA Regulations) and therefore is not Schedule 1 development for which an Environmental Impact Assessment (EIA) would be required.

The Scheme, as described above, is most likely to be applicable to infrastructure projects, specifically “works for the transfer of water resources between river basins not included in Schedule 1” as set out in part 10(o) of Schedule 2 of the EIA Regulations. However, the Scheme does not exceed the relevant threshold applicable to this type of infrastructure project (site area of 1 hectare). As such, the Scheme is not considered to be Schedule 2 development.

In any case, the Scheme is not located within a sensitive area as defined in Regulation 2(1) of the EIA Regulations. Furthermore, design measures and opportunities for mitigation to be incorporated into the Scheme mean that it should be practicable to avoid significant residual adverse effects in relation to these environmental considerations. It is therefore concluded that the proposed development is not EIA development.

5. Planning Policy

5.1 Overview

Section 70(2) of the Town and Country Planning Act (TCPA) 1990 and Section 38(6) of the Planning and Compulsory Purchase Act 2004 require that applications for planning permission must be determined in accordance with the development plan unless there are material considerations that indicate otherwise. The National Planning Policy Framework (NPPF) must be taken into account in preparing the development plan and is a material consideration in determining planning applications.

The site lies within the administrative area of HBC. The planning policy framework for Havant is currently provided by:

- The Havant Borough Core Strategy (2011) and Site Allocations Plan (2014); and
- The Hampshire Minerals and Waste Plan (2013).

HBC are currently preparing a new Local Plan to replace the Core Strategy and Allocations Plans. The adopted plan will remain in place until the new plan is adopted, though the policies in the emerging plan will begin to show a direction of travel and will gain some weight as the plan progresses through its stages of development.

HBC consulted on the 'Regulation 18' draft of the emerging Local Plan in 2022. This consultation focussed on the key issues the new Local Plan will need to address and options for dealing with those.

The Building a Better Future Plan Consultation Document states that formal adoption of the new Local Plan is scheduled to take place in Spring 2025.

5.2 National Policies

5.2.1 National Planning Policy Framework (NPPF) (2023)

The revised National Planning Policy Framework (NPPF) was published in December 2023 and sets out the national planning policies for England. The NPPF establishes national planning policy to achieve sustainable development, through themes that include promoting sustainable transport, meeting the challenge of climate change and achieving well-designed places.

At the heart of the framework is a presumption in favour of sustainable development, requiring the planning system to secure net gains across the following objectives:

- **An economic objective** – contributing to building a strong, responsive and competitive economy;
- **A social objective** – supporting strong, vibrant and healthy communities; and
- **An environmental objective** – contributing to protecting and enhancing our natural, built and historic environment.

The NPPF sets out 16 key policies. Those of relevance to the Scheme include:

- **Building a strong, competitive economy –** significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development**.**
- **Making effective use of land –** promote an effective use of land in meeting requirements for homes and other uses, whilst safeguarding and improving the environment**.**
- **Achieving well-designed places –** ensuring the creation of high-quality buildings, beautiful and sustainable buildings which incorporate good design. Development should be a result of good architecture, layout and appropriate and effective landscaping**.**
- **Meeting the challenge of climate change, flooding and coastal change –** plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for water supply. Policies should support appropriate measures to ensure the future resilience of communities and infrastructure to climate change impact**.**
- **Conserving and enhancing the natural environment –** protecting and enhancing valued landscapes, as well as preventing unacceptable levels of pollution or land instability. A key aspect of this is to provide net gains for biodiversity**.**

Paragraph 20 (b) requires local authorities to make sufficient provision for water supply infrastructure.

Paragraph 135 ensures that developments “are visually attractive as a result of good architecture, layout and appropriate and effective landscaping.”

Paragraph 158 identifies the need for Local Plans to proactively approach adaption to climate change, including accounting for long-term implications on water supply and resilience of infrastructure.

Paragraph 137 encourages applicants and developers to proactively engage with the community at an early stage, which will ensure that these applications are looked on more favourably.

5.2.2 Planning Practice Guidance: Water supply, wastewater, and water quality

The Planning practice guidance provides for ‘Planning Positively for Water Supply and Quality’ sets out guidance for considerations in plan making and for planning applications. The guidance states that good design and mitigation can yield multiple benefits for people and the environment. It suggests measures such as incorporating site-specific design, permeable surfaces, sustainable drainage systems and water quality enhancement to protect and enhance the infrastructure.

The guidance states that early engagement with the local planning authority, the Environment Agency and relevant water and sewerage companies as appropriate can help establish whether particular water and wastewater issues need to be considered.

The guidance goes on to state that for water supply, this is unlikely to be a consideration for most planning applications, expect for large developments not identified in plans that are likely to require a large amount of water, as well as where significant works would be required to connect the water supply.

5.3 Local Policies

5.3.1 Havant Borough Council Core Strategy (2011)

The Havant Borough Council Core Strategy sets out the strategic direction and broad distribution of development for the Borough, including strategic sites and areas for development and protection. It also contains some Development Management policies. The Core Strategy was adopted by Havant Borough Council on 01 March 2011.

The policies relevant to the Scheme are:

Policy	Objective
CS15	Flood and Coastal Erosion Risk
CS16	High Quality Design
CS19	Effective provision of Infrastructure
DM8	Conservation, Protection and Enhancement of Existing Natural Features
DM10	Pollution
DM14	Car and Cycle Parking on Development (excluding residential)

Policy CS15 Flood and Coastal Erosion Risk addresses the management of flood and erosion risks within the borough. The policy states that development in areas of flooding will be permitted where a “site-specific flood risk assessment demonstrates that the development will be safe, including the access, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.” The policy also states that development should meet the “sequential and exception test (where required).” Furthermore, “all development will be required to ensure that there is no net increase in surface water run off.”

Policy CS16 High Quality Design states that planning permission will be granted for development that is designed to a high standard. Specifically, all development should:

- Integrate with existing local landscape features, promotes wildlife and biodiversity and/or applies characteristics of the local area.
- Use the characteristics of the locality to help inform the design of the new development including heights, massing, existing buildings lines, plot widths and depths, materials and proportions of windows and doors.
- Avoid unacceptable harm to the amenity of neighbours through smell, the loss of privacy, outlook, noise and overlooking.

Policy CS19 Effective provision of Infrastructure states that development will be permitted where:

- It ensures that it makes the most effective use of existing infrastructure.
- It ensures that new infrastructure supports the local economy.
- It does not result in the loss of flood protection, education, health, social and other publicly provided community buildings, structures or services.

Policy DM8 Conservation, Protection and Enhancement of Existing Natural Features states that development will only be permitted where it protects and enhances local habitats and landscape distinctiveness. This includes protecting trees, woodlands and hedgerows from damage, destruction and a deterioration in quality. Furthermore, development should provide “new landscape works that integrate successfully with the local environment and existing natural features, using local materials and plant species and making provision for future maintenance of new landscape works associated with new developments.”

Policy DM10 Pollution states that development that may cause pollution of water, air or soil or pollution should ensure that the “water environment would not be detrimentally affected” by the proposals.

Policy DM14 Car and Cycle Parking on Development (excluding residential) states that development will only be permitted where it provides parking for cars, motor cycles and cycles in accordance with the relevant standards.

5.3.2 Havant Borough Allocations Plan (2014)

The Havant Borough Allocations Plan follows on from the adopted Havant Borough Local Plan (Core Strategy). The main aim of the Allocations Plan is to allocate land to help deliver from 2013-2026 the development requirements for housing and employment set out in the Core Strategy. It also replaces the remaining saved policies for the Havant Borough District-Wide Local Plan and includes a number of policies in addition to those in the Core Strategy.

Policy AL1 Presumption in Favour of Sustainable Development states that HBC will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework (NPPF). It will always work proactively with applicants to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.

Policy AL2 Urban Area Boundaries and Undeveloped Gaps between Settlements sets out the principle of concentrating development within the five urban areas of the Borough: Emsworth, Havant and Bedhampton, Hayling Island, Leigh Park and Waterlooville.

5.3.3 Hampshire County Council Local Transport Plan 4 (2024)

The Hampshire County Council Local Transport Plan 4 (LTP 4) outlines strategies for efficient and safe transportation management. The plan covers the period to 2050 and describes:

- A vision for what transport will look like in 2050.
- Transport-related outcomes covering climate change, environment, economy, and health and society.
- A set of core and theme-related policies that describe how the County Council will deliver the LTP4.

Part D of the LTP 4 sets out the key transport policies for Hampshire. Policy C4 emphasises that climate change will be at the heart of decision making. Part of this will involve working with partners to build resilience to flooding, including measures such as introducing green and blue infrastructure and Natural Flood Management or Sustainable Urban Drainage Systems (SuDS) which will improve water quality.

Policy C9 focuses on the protection of the environment. Hampshire County Council will aim for an overall net environmental gain by 2050 and will look to deliver environmental enhancements through new or upgraded infrastructure schemes, maintenance and operational procedures. This will be achieved, in part,

through schemes being “assessed to understand their carbon impact and resilience to the effects of climate change.”

Policy HP2 focuses on enabling healthy neighbourhoods and high streets in partnership with communities. This includes “engaging whole communities before planning changes to their neighbourhoods and high streets and involve them in the process.”

5.3.4 Building a Better Future Plan (emerging Local Plan)

HBC are preparing the Building a Better Future Plan (emerging Local Plan) which, when adopted, will supersede the current Core Strategy and Allocations Plan policy documents. ‘The Building a Better Future Plan’ for Havant which will set out how the borough should be developed into the future, address the needs and opportunities for development in the Borough, and set out how much, what type and where development will take place.

HBC consulted on the ‘Regulation 18’ draft of a new Local Plan in 2022. This consultation focussed on the key issues the new local land will need to address and options for dealing with those. HBC are now working on a draft of the Building a Better Future Plan, which will take into account consultation responses.

The Building a Better Future Plan Consultation Report set out the views gathered which could inform the draft emerging Local Plan. Key items included infrastructure, high quality design and biodiversity net gain.

Whilst the applicant has taken due consideration of this emerging policy, as the drafty emerging Local Plan is yet to be publicised, this policy document does not form part of the development plan and is immaterial to the decision making process.

6. Design and Access Statement

6.1 Construction

The construction of the water booster station and associated development will occur over a period of approximately 9-12 months and is intended to commence in Summer 2026 to Spring/Summer 2027.

The site will house the temporary construction compound areas. This will be undertaken in two phases, with the first phase utilising a laydown area to the north of the site, where the proposed water booster station will eventually be situated. The second phase will involve the laydown area being moved to the south of the site to allow for the construction of the proposed water booster station to take place.

A site boundary fence will be used to secure the site and to ensure the safety of the general public when construction works take place.

It is anticipated that construction traffic will access the site via Brookfield Close. It is expected that any planning permission will be subject to a planning condition requiring details on construction traffic management to be submitted to HBC, which will include measures to reduce disruption during construction.

6.2 Alternative sites

Portsmouth Water has considered alternative sites regarding the placement of the proposed water booster station.

The location of the proposed water booster station was selected based on extensive hydraulic modelling to find its optimum position along the Farlington to Racton trunk main. Following this work, two land locations were identified, one of which was located on an area of grassland located to the west of the site, to the west of Stockheath Lane and to the east of the watercourse.

This area to the west of the site was considered to be unsuitable due to its proximity to Hermitage Stream, as it is classed as a high risk of flooding, meaning the Scheme location would focus on the land to the east of Stockheath Lane (the site) which is within Flood Zone 1.

6.3 Design development

The Scheme has been through an iterative design process to respond to the requirements of the proposed use of the water booster station, coupled with advice and recommendations received from environmental specialists and assessments of the evolving design.

Initially, the preferred location for the proposed water booster station was set to be on the southern section of the site, which is closer to New Road. However, the design team found several underground services passing through this area, along with a requirement to remove more grassland and vegetation than the current Scheme proposal. For these reasons, the proposed water booster station building was designed to be located to the north of the site, in its current proposed location.

Notable changes during the design development include:

- The access to the proposed water booster station building had to be designed from Brookfield Close from a safety perspective, as driving out onto Stockheath Lane was deemed to be higher risk. A highways model was completed which outlined this.
- The location of the proposed water booster station building has changed from when the pre-application request was submitted to HBC. This is due to the location of HV and LV cabling serving local properties running below the proposed building. This meant the proposed building had to move from the south to north part of the site.
- The previous design showed a barn type construction. PW proceeded with a brick built and pitched roof design to ensure the proposed building was in keeping aesthetically with local properties.
- The height of the proposed building has been reduced from 6.86m to the current design of 5.75m.
- For the permeable hardstanding, Grasscrete will be utilised rather than tarmacked access, which allows for increased permeability and a larger surface area. The proposed Grasscrete also softens the industrial appearance, as opposed to the previously proposed tarmac.

6.4 Layout

The proposed layout of the Scheme is shown in the proposed site plan submitted with this application. The proposed water booster station will be located on the northern extent of the site. The kiosk will be located to the south of the water booster station. To the west of the kiosk, two surface water drainage chambers are proposed.

The proposed vehicle hardstanding area will be located on the eastern edge of the site, fronting on to Brookfield Close. Adjacent to this will be four 1m high removable bollards.

The proposed layout will maintain a largely undeveloped buffer towards the south of the site, with the exception of the proposed flow meter chamber, two washout chambers, surface boxes and actuated bypass chamber.

The majority of the site which is not subject to development will be planted with proposed species-rich grass. Four Betula pendula (Silver Birch) trees are to be planted on site. two of these are to be located in the centre of the site, with the other two located on the southern boundary of the site.

6.5 Scale and appearance

The size of the water booster station building is driven by the size and quantity of the equipment it will house. The proposed building is designed to ensure adequate space to safely install, operate and maintain the booster station equipment.

The proposed water booster station building will be a maximum of 6.2m in height at the north elevation, depending on the ground profile at the site.

The walls of the proposed water booster station will comprise red brickwork to reflect the palette of the design of the existing buildings in the locality, which are made up of predominantly residential dwellings.

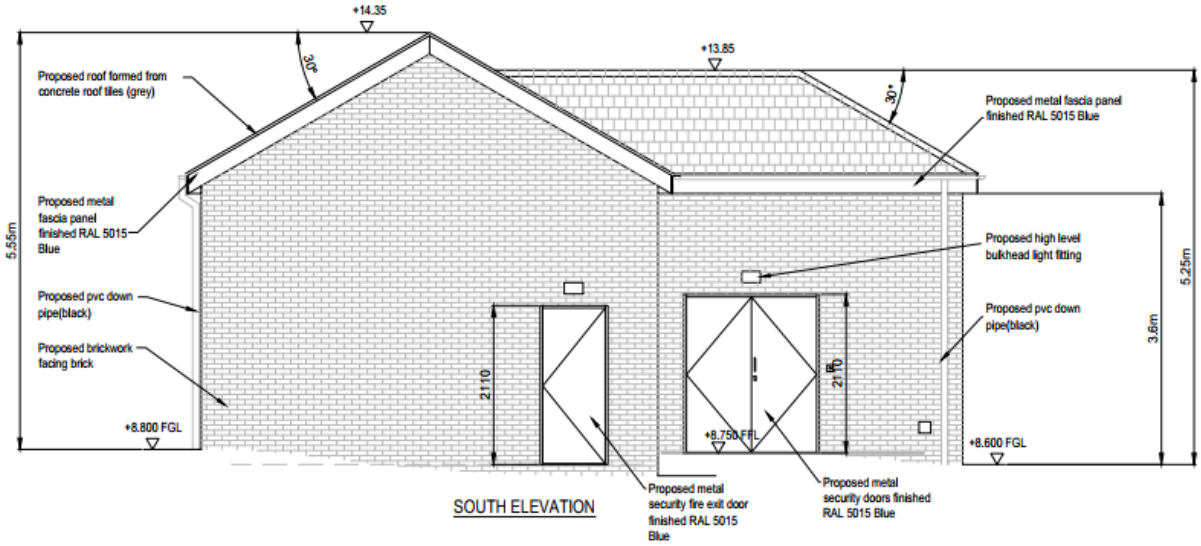
A metal security roller shutter door is proposed on the eastern elevation of the water booster station building. Metal fire exit doors will be located on the north and south elevations, which are to be finished in RAL 5015 Blue.

The pitched roof will be constructed of grey concrete roof tiles.

The proposed kiosk will be 2.8m x 3.1m and will be 2.3m in height. The kiosk will have a holly green finish. Its location adjacent to the water booster station will contribute an ancillary appearance reflective of its nature.

The proposed two washout chambers, flow meter chamber and actuated bypass chamber will be flush with the existing ground levels.

Figure 6-1 - South Elevation of Proposed Booster Station Building



6.6 Landscaping

The existing site is largely laid out as grass and the Scheme will be developed to reflect this context. The soft landscape scheme comprises proposed species-rich grass and proposed species-rich native hedgerow which will partially screen the proposed water booster station.

The north elevation of the proposed water booster station will be partially screened by the existing alder tree, which is to be retained.

As four trees are proposed to be planted, this will also provide further screening over time. At the time of planting, these proposed trees will be approximately 4m tall. The proposed location of the trees seeks to avoid canopies from overlapping at maturity.

The submitted Landscape Proposals Plan (document reference: 5227179-ATK-XX-XX-DR-L-1000) displays the landscaping proposals for the Scheme.

6.7 Access

The Scheme will be accessed occasionally for maintenance purposes by operational personnel. The site will be accessed via the proposed hardstanding area to the east of the site adjacent to Brookfield Close.

Vehicular access will be provided through a dropped kerb that will allow access on to the proposed hardstanding area adjacent to Brookfield Close.

Construction access is to be detailed in a Construction Environmental Management Plan, which is anticipated to be secured by planning condition.

7. Development Appraisal

7.1 Principle of Development

The Scheme will provide improved resilience of the potable water supply between the Farlington and Racton reservoir zones, which includes customers within the Emsworth, Havant and Leigh Park Area. This will ensure future resilience of drinking water supplies for PW's customers and communities. The Scheme therefore accords with Policy CS19 of the Havant Core Strategy.

The Scheme will also help to address future issues relating to population and housing growth, the impacts of climate change and the need for sufficient water in watercourses to enhance biodiversity and protect the environment. When considering these factors, as the Scheme will improve the economic, social and environmental conditions in the area, the Scheme is in accordance with Policy AL1 of the Havant Borough Allocations Plan and the objectives set out the NPPF.

The Scheme is also located within the Urban Area Boundaries as set out in Policy AL2 of the Havant Borough Allocations Plan, which ensures development should be concentrated within these areas.

7.2 Design, Scale and Appearance

The design team have sought to reduce the scale of the proposed water booster pumping station throughout the design development of the Scheme, following on from pre-application engagement with HBC in 2019. The design interventions as described in the Design and Access Statement section of this PDAS have resulted in a Scheme which is sympathetic to the existing buildings and built environment in proximity to the site, and as such is in accordance with Policy CS16 of the Havant Core Strategy, as well as paragraph 135 of the NPPF.

The scale and appearance of the Scheme has been a key consideration in the balance of the functionality of the scheme against the design and aesthetics. The client and project teams have also engaged with local residents and stakeholders prior to submission of the planning application, with the design of the Scheme being a key aspect which the consultees have been given the opportunity to feed back on. As such, the Scheme accords with Policy HP2 of the Hampshire County Council Local Transport Plan, as well as paragraph 137 of the NPPF.

7.3 Biodiversity, Ecology and Biodiversity Net Gain

The planning application is supported by a full Ecological Impact Assessment (EcIA) which describes the ecological baseline and evaluates the nature conservation importance of ecological features present within the zone of influence for the Scheme. The assessment identifies impacts (both positive and negative) on important ecological features, sets out agreed avoidance, mitigation, compensation and enhancement measures and provides details on the significance of residual effects for each important ecological feature.

The EcIA identifies that there are no statutory designated sites for nature conservation within 1 km of the site, nor are there any non-statutory designated sites for nature conservation within 500 m of the site. There is a priority habitat (hedgerow) located along the eastern boundary of the site with construction of the Scheme resulting in the loss of an 8m section of this priority hedgerow habitat. However, following the implementation of standard construction mitigation measures, plus the implementation of the landscaping

proposals, it is anticipated that there will be a non-significant minor negative residual effect on hedgerow priority habitat at the local level. As such, the Scheme accords with Policy DM8 of the Havant Core Strategy.

A Biodiversity Net Gain (BNG) Feasibility Assessment has been produced and accompanies this application. The report measures and accounts for biodiversity losses and gains resulting from the Scheme and has been undertaken using the Statutory Biodiversity Metric published by Defra. The Scheme must also deliver at least 10% BNG in line with the requirements of Schedule 14 of the Environment Act 2021.

The Scheme has committed to achieving BNG through the enhancement of the other neutral grassland from poor to moderate. The individual trees on the site will also be retained and some of the hedgerow is to be retained. As previously mentioned, a new species-rich hedgerow will also be implemented as part of the Scheme, which will offset that which is to be lost to allow for the Scheme to be constructed.

The BNG Feasibility Assessment confirms that the Scheme meets the minimum requirements of at least 10% BNG on site, and no offsite planting is required in order to achieve this target. The Scheme will result in a net gain of 0.12 habitat units, with a predicted total net change of 11.58%, and a net gain of 0.08 hedgerow units, with a predicted total net change of 18.56%. As such, the Scheme aligns with the requirements of the Environment Act 2021 legislation, as well as Policy C9 of the Hampshire County Council Local Transport Plan, through achieving net gain in biodiversity. The Scheme also aligns with Policy DM8 of the Havant Core Strategy through providing new landscape works that integrate successfully with the local environment

7.4 Noise and amenity

A Noise Baseline Report has been produced which details the baseline noise survey undertaken to determine the acoustic environment of the site and the surrounding area at the proposed pumping station location. This can be found in Appendix A.

A full acoustic assessment which assesses the full impacts of the Scheme on noise levels at the site and its surroundings will be undertaken at the discharge of planning condition stage. This is to allow sufficient time for the Scheme design to develop further and to allow for the acoustic survey to take account of the design which will be taken into construction. This will also allow for appropriate mitigation for noise and residential amenity to be incorporated into the Scheme design.

As per the pre-application advice received from HBC, it is expected that a Grampian-style condition will be imposed to ensure an acoustic assessment will be required through a pre-commencement planning condition. This will ensure that the Scheme is compliant with Policy CS16 of the Havant Core Strategy.

7.5 Flood Risk

The site is located entirely within Flood Zone 1, which has a low probability of flooding from rivers and the sea. However, the site is located close to Flood Zones 2 and 3, and its located approximately 50m from a watercourse. A Flood Risk Assessment (FRA) supports this planning application which provides a qualitative assessment of the flood risks to the site and any increase or decrease in flood risk arising from the Scheme.

Regarding the sequential test for flooding, the Scheme has considered other sites which were discounted due to being at a higher risk of flooding, ensuring that the Scheme has been steered away from the high-

risk areas of flooding. This also ensures the Scheme is compliant with the sequential test element of Policy CS15 of the Havant Core Strategy.

The FRA states that the surface water mapping flood extent from the Environment Agency's website is indicates that the site is at very low risk of surface water flooding with less than a 0.1% (1 in 1000) annual exceedance probability (AEP) event.

The intention is to connect the Scheme to the surface water drainage sewer network. The surface water design will be developed through detailed design. In any case, the FRA concludes that the Scheme is at low risk of surface water flooding and the Scheme would not cause an increase in risk from this source. The Scheme also incorporates permeable Grasscrete for the booster station access track, ensuring that the Scheme accords with Policy C4 of the Hampshire County Council Local Transport Plan.

7.6 Arboriculture and Trees

A tree survey has been undertaken and an Arboricultural Impact Assessment (AIA) was subsequently produced which supports this planning application. A Tree Protection Plan (TPP) has also been produced which details the protective measures to be undertaken during construction. The AIA focuses on the trees within the extents of the Scheme and reports on the impacts on the recorded trees from the proposals.

The AIA notes the partial loss of some of the existing G002 hedgerow. This is described as experiencing frequent dieback and dead wood in crowns of some of the trees. There were also collapsed stems that are indicative of a lapse in management. The AIA also notes that tree losses are limited to low quality specimens, and this should not hinder the development. Furthermore, the AIA recommends protective barriers as per the TPP to protect the remaining retained hedgerow.

The AIA confirms that no TPO tree impacts will occur as a result of the Scheme. Furthermore, no veteran trees or Ancient Woodlands have been identified to be within or adjacent to the Scheme extents. The AIA recommends mitigation measures including tree protection fencing to minimise impacts during construction works.

When considering the above, the Scheme will be removing hedgerow which is of limited value and protecting what remains. Furthermore, as set out in the landscaping proposals, the Scheme will provide enhancements through four additional trees within the site. As such, the Scheme aligns with Policy DM8 of the Havant Core Strategy due to the successful protection and enhancement of the trees and hedgerows on site.

8. Conclusion

The Scheme will introduce infrastructure in the form of a water booster station and associated development which will help to ensure the future resilience of drinking water supplies for PW's customers and communities. The purpose of the Scheme is supported by the National Policy Statement for Water Resources Infrastructure (April 2023) which recognises the immediate need to build resilience in the water sector to address pressures on water supplies.

Implementation of the Scheme is essential to increase the resilience of water supply in Havant, Hampshire and across the entire supply region to over 50,000 people. Predicted housing growth and a rapidly growing population, as well as a less predictable climate, will all place pressures on water supplies. This is exacerbated by the region now being classed as 'water stressed' by the Environment Agency.

The NPPF sets out the requirement to maintain water supply, with paragraph 158 stating that local plans should proactively adapt to climate change and account for the "long-term implications on water supply and resilience of infrastructure."

There are no significant residual adverse effects identified through the supporting assessments that have taken place to date. The Scheme accords with all relevant policies of the Havant Core Strategy, the Havant Borough Allocations Plan and the Hampshire County Council Local Transport Plan.

Activities have taken place which have identified the site as the most suitable to accommodate the proposed water booster station and associated development. The Scheme has also been appropriately designed to reflect the context of the site and its surroundings, whilst delivering a viable scheme to provide the increased resilience required for the water infrastructure in the area for the future.

Significant efforts have been made to reduce the impact on residential amenity due to the Scheme's proximity to residential properties. Design optioneering has taken place which was sought to reduce the scale of the building to a size which is wholly necessary to house the booster station equipment within it. The external appearance has also been designed to be sympathetic to its surroundings. Furthermore, screening through the proposed landscape design has also been incorporated into the Scheme.

Whilst the proposed water booster station building will be visible to some receptors in the locality of the site, the need for the proposed infrastructure, coupled with the policy compliance outlined above, results in the planning balance being in favour of approval of planning permission for the Scheme.

APPENDICES

Appendix A. Noise Baseline Report

AtkinsRéalis

Baseline Noise Survey

Portsmouth Water

July 2024

2024/JULY/01

RACTON PUMPING STATION

AtkinsRéalis - Sensitive / Sensible (FR)

Notice

This document and its contents have been prepared and are intended solely as information for Portsmouth Water and use in relation to the baseline noise survey of the proposed Racton Pumping Station.

AtkinsRéalis UK Limited assumes no responsibility to any other party in respect of or arising out of or in connection with this document and/or its contents.

This document has 17 pages including the cover.

Document history

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Document reference: 2024/JULY/01

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1.0	Issue to client	JB	JM	HM	HM	16/07/2024

Client signoff

Client	Portsmouth Water
Project	Racton Pumping Station
Job number	5227179
Client signature/date	

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Executive Summary

AtkinsRéalis has been commissioned by Portsmouth Water (PW) to undertake a baseline noise survey to assist the design of a booster pumping station proposed to be located at a site enclosed by New Road, Stockheath Lane, Trosnant Road and Brookfield Close in Havant, Hampshire.

The long-term unattended baseline noise measurements were undertaken during 24 hours between the 1st of July and 2nd of July 2024, the equipment was placed within a PW van, ensuring that the microphone was extended to 1 meter above the van's roof in order to be representative of free field measurement conditions.

The baseline noise survey resulted in typical background noise levels of 53 dB L_{A90} during the daytime and 34 dB L_{A90} during the night-time.

1. Introduction

1.1 Scope

AtkinsRéalis has been commissioned by Portsmouth Water (PW) to undertake a baseline noise survey to assist at later design stages for a booster pumping station. The pumping station is proposed to be located at a site enclosed by New Road, Stockheath Lane, Trosnant Road and Brookfield Close in Havant, Hampshire. The purpose of the pumping station is to transfer water from Farlington to the Racton Service Reservoir (SR).

This report describes the baseline noise survey undertaken to determine the acoustic environment of the surrounding area at the proposed pumping station. The acoustic environment is described in terms of measured noise levels and acoustic context.

The report has been undertaken with integrity, objectivity and honesty in accordance with the Code of Conduct of the Institute of Acoustics (IOA) and ethically, professionally and lawfully in accordance with the Code of Ethics of the Association of Noise Consultants (ANC).

The technical content of this assessment has been provided by AtkinsRéalis ANV personnel, all of whom are corporate members (MIOA) or non-corporate, associate members (AMIOA) of the IOA (the UK's professional body for those working in acoustics, noise and vibration). This report has been peer reviewed by senior acousticians within the AtkinsRéalis ANV team to ensure that it is technically robust.

A glossary of the acoustic terms used in this report is presented in Appendix A.

2. Baseline Noise Survey

An unattended baseline noise survey was undertaken between 1st and 2nd July 2024. The purpose of this survey was to identify the existing ambient noise environment at the nearest sensitive receptors.

2.1 Measurement Location

The noise monitor was located in a free-field position, on the roof of a van parked next to 1 Brookfield Cl, and 10m away from the nearest sensitive receptor. The monitoring location is shown in Figure 2-1.

Figure 2-1 - Noise Monitoring Location.

2.2 Methodology

To achieve an accurate measurement representative of the nearest noise-sensitive receptor (NSR), a sound level meter was installed inside the van and a microphone mounted to a tripod, extended above the roof of the van whiwh was parked adjacent to the NSR. The tripod was extended to approximately 2.7 meters off the ground, ensuring that the microphone was extended to 1 meter above the roof of the van in order to be representative of free field measurement conditions.

The above methodology of placing a sound level meter within a van and mounting the microphone through the roof above the van was selected after investigation showed there were no secure locations to place the noise logger at a representative location in the area. This methodology was chosen as it will still provide representative noise levels

as the van was placed in a representative location i.e. similar distance from dominant noise sources (local and distant road traffic in this case) in the area as the nearest NSR.

2.3 Measurement Equipment

The baseline noise survey was undertaken with a Class 1 sound level meter, which conformed with the specification given by BS EN 61672-1:2013 - Electroacoustics — Sound level meters. The sound level meter was tripod mounted at 2.7m above the ground level and the microphone was fitted with a windshield.

The sound level meter was field calibrated both before and on completion of the survey. No significant drift in calibration was observed. Description of the equipment and the calibration history is shown in Table 2-1 and calibration certificates can be provided on request.

Table 2-1 - Equipment details

Type	Manufacturer	Model	Serial	Last Laboratory Calibration
Frequency Meter	01dB	FUSION	12817	10/11/2022
Microphone	GRAS	40CD	383184	10/11/2022
Ext Pre Amplifier	01dB	Pre No22	1915119	10/11/2022
Int Pre Amplifier	01dB	FUSION	12817	10/11/2022
Associated Calibrator	01dB	CAL31	93745	22/11/2023

2.4 Survey Results

A summary of the background sound levels measured during the monitoring period are detailed in Table 2-2. The time history of measured noise data during the monitoring period is presented in Appendix B.

The dominant noise source in the area was observed to be road traffic noise from New Road, with no significant contribution from local road traffic on the smaller Stockheath Lane, Trosnant Road and Brookfield Close. Other noted noise sources were birdsong, rustling of trees and pedestrian traffic in the area.

Equivalent continuous sound levels in dB $L_{Aeq,T}$ have been derived from the logarithmic average of 5-minute measurements. Background sound levels in dB $L_{A90,T}$ have been derived from the modal analysis of the 5-minute measurements over the survey duration. The modal analysis is presented in Appendix B.

Over the entirety of the measurement period, weather conditions were considered suitable for the sound level measurements (wind speed below 5 m/s and dry weather conditions).

Table 2-2 - Summary of measured noise levels at monitoring position

Daytime (07:00-23:00)		Night-time (23:00-07:00)	
$L_{Aeq,T}$, dB	$L_{A90,T}$, dB	$L_{Aeq,T}$, dB	$L_{A90,T}$, dB
58	53	55	34

The typical background noise levels are 53 dB L_{A90} during daytime and 34 dB L_{A90} during night-time.

3. Conclusion

An unattended 24-hour noise survey was undertaken between 1st and 2nd July 2024.

The baseline noise survey resulted in typical background noise levels of 53 dB L_{A90} during the daytime and 34 dB L_{A90} during the night-time.

APPENDICES

Appendix A. Acoustics Terminology

A-weighting, dB(A)

The most widely used weighting mechanism that best corresponds to the response of the human ear is the 'A'-weighting scale. This is widely used for environmental noise measurement, and the levels are denoted as dB(A) or L_{Aeq}, L_{A90} etc., according to the parameter being measured.

Sound which is transmitted from the source via the surrounding air, as distinct from transmission through the structure which supports the sound source (cf. structure borne sound).

Ambient noise

Totally encompassing sound in a given situation at a given time usually composite of sounds from many sources near and far.

Centre frequency

The arithmetic centre of a constant bandwidth filter, or the geometric centre (midpoint on a logarithmic scale) of a constant percentage filter.

Decibel, dB

A logarithmic scale for comparing the ratios of two quantities, including sound pressure and sound power. The decibel can also be used to measure absolute quantities by specifying a reference value that fixes one point on the scale. For sound pressure, the reference value is 20 µPa.

The following figure is provided for reference to illustrate typical noise levels experienced in common situations.

Figure A-1 - Examples of Typical Noise Levels.

(Source: HEALTH AND SAFETY EXECUTIVE. Noise at Work: Guidance for Employers on the Control of Noise at Work Regulations 2005. Sudbury: HSE Books)

Façade noise level

A façade noise level is the noise level 1m in front of the most exposed window or door in a building façade. The effect of reflection is to produce a slightly higher (typically +2.5 to +3 dB) sound level than it would be if the building was not there.

Free-field

Measurement condition in which no reflective surfaces, other than the ground, lies within 3.5 metres of the microphone position.

Hertz, Hz

This is the unit of frequency representing the number of times a periodic wave repeats itself per second.

Measurement time interval, TM

The total time over which measurements are taken.

Octave bands, octave band sound pressure levels, one-third octave band sound pressure levels

A range of frequencies whose upper limit is twice the frequency of the lower limit. The octave-band pressure level of a sound is the band pressure level for a frequency band corresponding to a specified octave.

The ISO standard octave centre frequencies are 32, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz (etc.).

The ISO standard one-third octave band frequencies are 1, 1.25, 1.6, 2, 2.5, 3.15, 4, 5, 6.3, 8 Hz and decade multiples thereof.

Noise level indices

Noise levels usually fluctuate over time, so it is often necessary to consider an average or statistical noise level. This can be done in several ways, so a number of different noise indices have been defined, according to how the averaging or statistics are carried out. The most common noise level indices used in environmental acoustics are the following:

$L_{Aeq,T}$

A noise level index called the equivalent continuous noise level over the time period T. This is the level of a notional steady sound that would contain the same amount of sound energy as the actual, possibly fluctuating, sound that was recorded.

$L_{A90,T}$

The noise level that is exceeded for 90% of the measurement time interval, T. L_{A90} can be considered to be the “average minimum” noise level and is often used to describe the background noise level, i.e. the sound pressure level of non-specific noise.

Sound power level, SWL

The sound power level is the fundamental measure of the total sound energy radiated by a source per unit time.

The sound power level of a sound source, in decibels, is equal to 10 times the logarithm to the base 10 of the ratio of the total acoustic power emitted by a source to a reference power, which is normally taken to be 10 12 W.

Sound pressure level, L_p

A value equal to 20 times the logarithm to the base 10 of the ratio of the root-mean-square pressure of a sound to a reference pressure, which is normally taken to be 20μPa. Its unit of measurement is the decibel (dB).

Time Weightings, Fast (F), Slow (S) and Impulse (I)

Time weighting is used in sound level meters to stabilize the reading. This is achieved by standardizing the speed with which the metering circuit and meter respond. Two different averaging’s are used (1) 'FAST', 'F', which has a time constant of 125ms, and (2) 'SLOW', 'S', which has a time constant of 1000ms. The impulse (I) characteristic is sometimes used to measure gunshots, punch presses, etc. It has a rise time constant of 35ms and a decay time constant of 1500ms.

Appendix B. Noise Survey Details

B.1 Site Photos

Figure B-1 – Tripod and Sound Level Meter Set Up Within the Van.

Figure B-2 – Side View of Microphone Extended Above Van Roof Adjacent to the Nearest NSR.

Figure B-3 – Van Parked Adjacent to 1 Brookfield Close.

B.2 Time History Chart of Long-Term Noise Monitoring Data

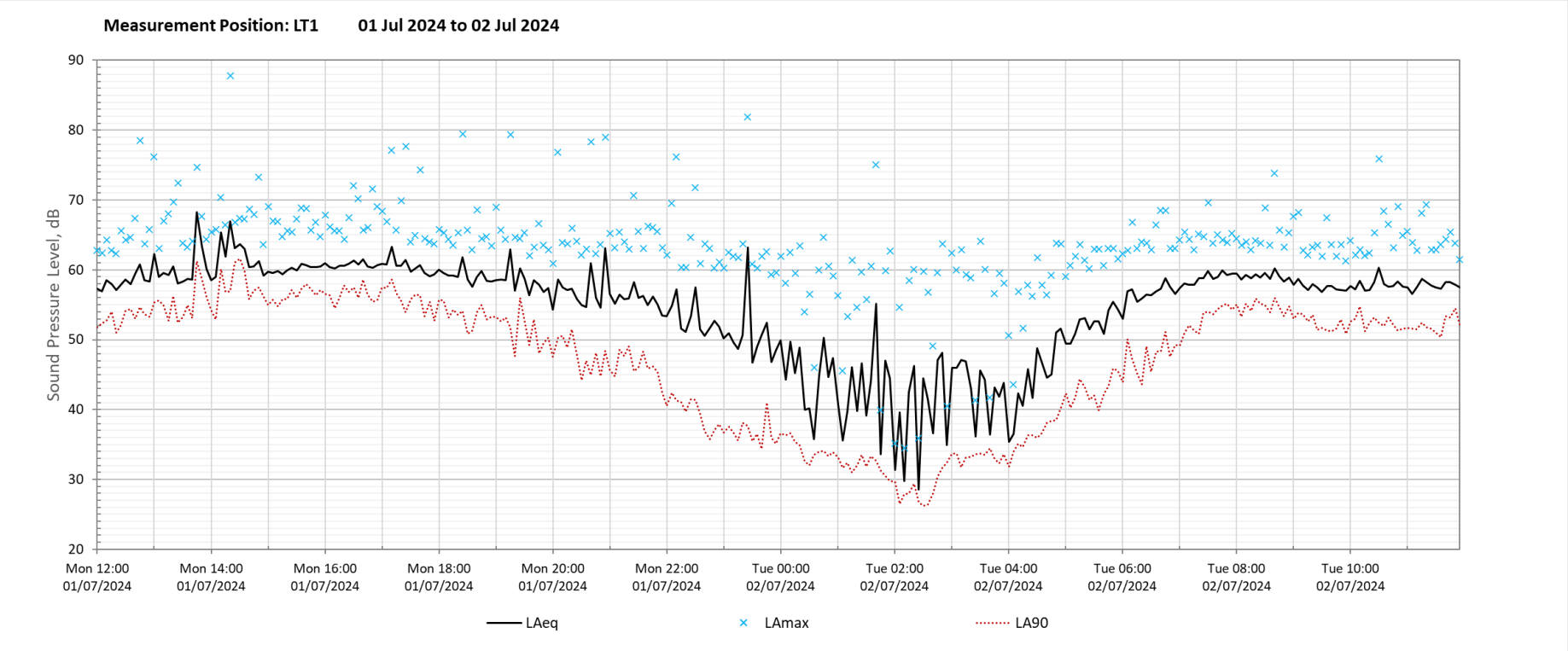

Figure B-4 - Time History Chart of Measured Noise Data at Monitoring Position.

B.3 Modal Analysis of Background Levels

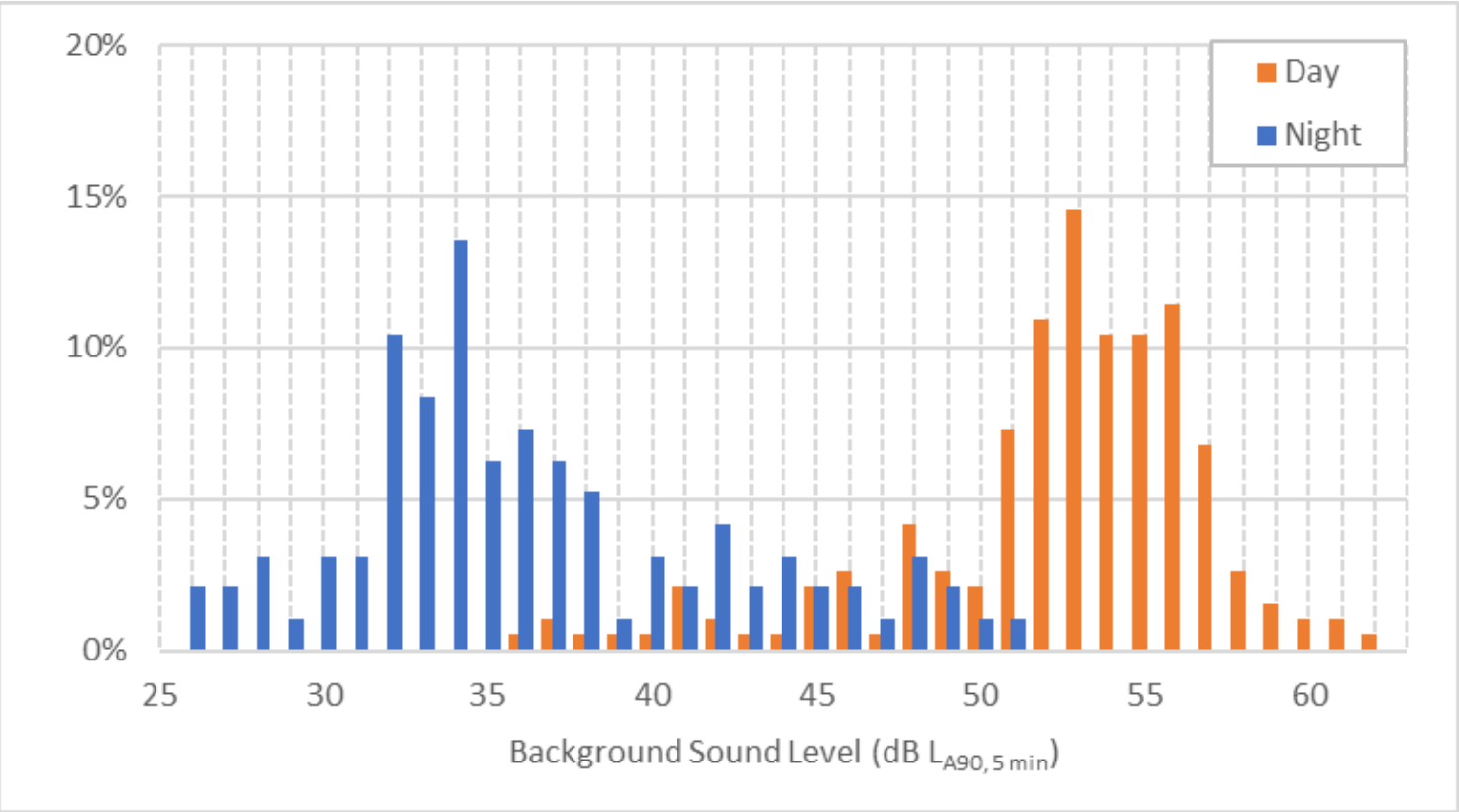

Figure B-5 - Modal Analysis of Background Sound Levels.

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Appendix B. Pre-application consultation response

Havant
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27 September 2019

Site Location: Land at junction of Stockheath Lane and New Road, Havant
Re: Water booster pumping station.

Dear Sir,

I am writing to you further to your enquiry received on the 13 August 2019 regarding the above address. Please accept my apologies for the delay in our response.

Relevant policies:
Any future proposal would be considered in accordance with the relevant national (NPPF) and local planning policies. In the case of Havant, this currently refers to the policies in the adopted Core Strategy, 2011 and Allocations Plan, 2014, along with supplementary planning documents (SPDs) which form part of the Local Plan. Please see link below to access the planning policy page for all relevant documents:
http://www.havant.gov.uk/planning-policy

The most relevant policies to this site and proposal would be:
Core Strategy:

CS16 - High Quality Development
CS17 - Concentration of Development within the Urban Area
CS21 - Developer Requirements
DM10 - Pollution
DM14 - Car and Cycle parking on Development (excluding residential)

Allocations Plan:
AL1 - Presumption in Favour of Sustainable Development
AL2 - Urban Area Boundaries and Undeveloped Gaps between Settlements

Havant Borough Local Plan 2036:
We must also point out that the Pre-Submission Havant Borough Local Plan 2036 was approved by the Council on January 2019 and the emerging policies contained within this new Local Plan are a material consideration in the determination of current planning applications. The weight to attach to these emerging policies is likely to increase over time and therefore, as your scheme may take time to prepare and submit, you should also be aware of the requirements of these emerging polices which can be found at:
http://www.havant.gov.uk/localplan.

In particular (though not exclusively) in terms of the detailed design I would draw your attention to the emerging policies covering internal space standard criteria, high quality design, amenity and pollution, low carbon design, drainage, biodiversity net gain, housing density contained in policies E1, E12, E14, E20, E22. Whilst these are subject to change through the forthcoming Examination of the Local Plan, elements of these policies are

relevant to your proposals for the site.

It is considered that the main issues in determining any future applications on the site to be:
i) The principle of development
ii) The impact on the character and appearance of the area, including trees
iii) Impact on amenities of neighbouring properties
iv) Highway matters
v) Flood Risk

i) The principle of development
The site is located within the built up area. Within this area there is a presumption in favour of sustainable residential development subject to other development management criteria considered below.

ii) The impact on the character and appearance of the area
This site is highly visible from the public realm and public views from around the site, particularly given the level changes across the site. The design and scale of the proposal are noted, concerns do exist that the development could have a adverse impact on the character of the area, through appearing would appear overly dominant, by virtue of its size, scale and massing in adjoining street scenes and, it would appear,would not address the level changes in the area successfully, in relation to the overall resulting scale and bulk of the built form proposed. What would help in this context, is to provide the Local Planning Authority with an understanding of the minimum size required for Portsmouth Water as a Statutory Undertaker, for this pumping station. This would be useful information to see whether the size and scale of the building and associated compound could be reduced in size, and therefore reducing the impact of the development on the area.

In addition to the above, it would be appropriate to consider landscaping around the proposed compound, which will be able to soften the impact of the development on the immediate and surrounding area and form an appropriate landscaping framework set against the mature trees adjacent to the site. In terms of the impact of the trees, as you have acknowledged in paragraph 1.2.2, a full arboricultural impact assessment and tree protection plan needs to be completed for the Local Planning Authority to comment on this aspect.

iii) Impact on amenities of neighbouring properties
Our Environmental Health Team have outlined that they would require confirmation that the pumps / plant that would be utilised, would not cause an adverse noise impact to nearby and /or adjoining residential receptors. As such it is considered that this may require an acoustic noise assessment to confirm whether any mitigation measures may be necessary. Without such an assessment, this would need to be covered and controlled through a grampian style condition, with a potential condition as follows:

No development shall take place until an acoustic assessment showing that the rating level of any plant & equipment, as part of this development, will be at least 5 dB below the existing background levels, has been submitted to and been approved in writing by the Local Planning Authority. The assessment must be carried out by a suitably qualified acoustic consultant / engineer and be in accordance with BS4142: 2014 Methods for rating and assessing industrial and commercial sound.
Reason: In order to safeguard the amenities of adjoining residential occupiers. The details are needed prior to the start of work so that any mitigating measures can be incorporated into the build.

iv) Highway matters
The Highway Authority now operates a separate pre-application advice, which you make like to use. In terms of the views of the Local Planning Authority, the proposed compound area is very close to the junction of Stockheath Road and New Road, as such due consideration must be given to ensure that the development, through entering, exiting and manoeuvring of vehicles does not have an adverse impact on the safety and free flow of the highway network.

v) Flood Risk
It is noted in the supporting statement that this site has been chosen as it is located in flood zone 1, compared to the initial site which is an area of higher flood risk. The Environment Agency do offer a separate pre-application planning service in this regard.

Conclusion
The Local Planning Authority do have some concerns that the development could have an adverse impact on the character and appearance of the area, which has been outlined above. It would be helpful to understand the full context of the need for the development to be of the size proposed i.e. is this a standard requirement or can the size be reduced. As has been highlighted further information is required regarding a few aspects. The Local Planning Authority would be willing to discuss the matters further in due course.

Please note that the above comments are the opinion of individual Planning Officers and are in no way binding upon the Council when determining any future applications for planning permission and nor will they prejudice the outcome of any applications submitted.

This advice also only relates to planning matters, and does not relate to any other application that may be required under Building Regulations or under any other Act, Regulation, Byelaw or Order where the Council's approval may be needed. For further guidance as to the need for consent under the Building Regulations please phone 02392 446571

Yours faithfully

Mr L Oliver
Principal Planner
Our Ref: GEN/19/00668

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