
**Budd's Farm Wastewater
Treatment Works – Erection of
additional CHP kiosk**

Planning Statement inc. Design
and Access and FRA.

Planning Portal Reference:
PP- 05066256

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Issue and Revision Record

Revision	Date	Originator	Checker	Approver
A	10.04.2016	Claire Lipop	Martin Ross	Luke Mosson

1 INTRODUCTION

This document is in support of a Planning Application relating to the proposed additional CHP engine at the existing Budd's Farm Waste Water Treatment Works (WTW), Southmoor Lane, Budd's Farm, Havant, Hampshire PO9 1JW.

This scheme forms part of Southern Waters' CHP Asset Replacement Strategy under the Carbon Mitigation Programme. This is a replacement programme of aging CHP engines at various existing wastewater treatment works with more efficient and sustainable CHP engines that will continue to provide energy, fuelled from renewable sources, to power the operational sites. The programme also includes the installation of additional CHP units at a number of sites to maximise the renewable benefits of increased biogas production due to population growth in the region.

2 SCHEME DRIVER

Southern Water (SW) have a portfolio of 16 Combined Heat & Power (CHP) units generating c. 15% of our energy needs across our operational sites. A number of units have exceeded their design life and we plan to replace them. The design and efficiency of gas engines has been improved significantly since the original engines were installed and the replacement units will therefore, generate more renewable energy compared to the current installations. The programme also includes the installation of additional CHP units at a number of sites to maximise the renewable benefits of increased biogas production due to population growth in the region.

The National target overall for renewable energy is 15% by 2020. This target has been broken down with 30% targeted for Electricity, 12% heat demand and 10% transportation. Investment in replacement and additional CHP units will contribute to the National target, as well as increasing SWs coverage of renewable generation which in turn will improve operational efficiency and reduce the impact of rising energy costs on our customer's bills.

3 CHARACTERISTICS OF THE DEVELOPMENT

3.1 Site Location

The proposed CHP is located within the operational Budd's Farm Waste Water Treatment Works (WTW), Southmoor Lane, Budd's Farm, Havant, Hampshire PO9 1JW. Budd's Farm WTW is located

Access to the site will be via Southmoor Lane off the A27. The majority of the site consists of concrete structures, buildings and areas of hard standing with part of the site boundary consisting of established trees. There are number of small mown grass areas within the site as well as larger grassed area to the west of the main works.

The new asset proposed will be located entirely within the confines of the operational site.

The site falls within the local authority area of Havant Borough Council and Hampshire County Council.

3.2 Existing WTW development

The existing WTW is a typical biological trickling filter bed works treating wastewater from surrounding settlements.

The wider WTW has an area of approximately 17ha and currently includes the following operational infrastructure:

- Workshop and mess room;
- Inlet works;
- Primary settlement tanks
- Biological filter
- Sand filters

3.3 Extent of Proposed Development

The site currently includes a CHP unit generating renewable energy to support the site. Due to the predicted population growth in the region the volume of waste water treatment is forecast to increase resulting in higher levels of sludge treatment and

biogas production. To ensure that we maximise the benefit of this renewable fuel we are proposing to install as second CHP unit at the site. The addition of a second CHP will provide greater flexibility to accommodate fluctuations in the quantity of waste water treated by the site as both the existing and new CHP units will be able to modulating their output to suit the biogas production.

The proposed works will include the erection of a new kiosk which will house the CHP engine along with associated flues, a dry air cooler, intercooler and gas booster system are also proposed to facilitate the operation of the CHP engine and ensure maximum efficiency throughout the year.

The proposed kiosk will occupy an area of 35.8 m² based on a CHP unit with a width of 2990mm and length 12000mm.

A temporary compound including container will be required on site during the construction works.

3.4 Requirement for EIA Screening

It is considered that the proposed works do not constitute schedule 1 development. Due to the proposed development area (including the temporary compound), the development does not exceed the size threshold of 1000m² where in accordance with Paragraph 11 (c) of Schedule 2 of the Town and Country Planning (Environmental Impact Assessment (EIA) Regulations (2011) development of this size may require an EIA and a screening for EIA should be carried out.

The proposed development is not considered to have any significant effects on the environment by virtue of the proposals size, very limited increase in built form and given its nature, location and the existing use of the land. Due to the relatively minor nature of the works within a large operational wastewater treatment works, it is assessed that the proposed development would not be classed as EIA development.

A preliminary assessment has been conducted by a qualified ecologist, which provides a range of basic advice to be followed during construction. An assessment

of the construction phase in terms of vehicle movements has also been undertaken. It is not considered that either of these aspects will have any significant temporary or permanent environmental impact on the site or surrounding area.

3.5 Planning Requirement

The development of the kiosk requires planning permission as it is an above ground walk-in kiosk, which can be interpreted as a building. A single exhaust flue is required, along with two air intake vents which will be situated on top of the kiosk. The other parts of the permanent development, namely the dry air cooler (DAC), transformer, intercooler and gas booster are on operational land and fall within the necessary parameters of the General Permitted Development Order benefiting from Southern Water's Permitted Development rights as a Statutory Undertaker.

The kiosk will be constructed in steel and coloured dark green to BS 4800 ref. 14C39. The engine exhaust flue and air intakes will be constructed from steel and left untreated.

3.6 Permitted Development

Table 1 lists the proposed new structures and provides details of their external material and finish.

It is assessed that the additional works required below constitute Permitted Development under the Town and Country Planning (General Permitted Development) (England) Order 2015 (GPDO).

The following works are taken to fall under Part 13 Water and Sewerage Class A Water or hydraulic power undertakings, paragraph g of Schedule 2 of the GDPO which states:

“any other development in, on, over or under their operational land, other than the provision of a building but including the extension or alteration of a building.”

- CHP Dry Air Cooler
- Intercooler
- Transformer

- CHP Gas Booster
- Temporary Contractor's Compound.

A temporary contractor's compound is required for the duration of the construction period and will consist of site cabins, material storage areas and welfare and storage facilities. The compound will cover an area of approximately 325m² and will be set up adjacent to the proposed kiosk on an area currently used for storage.

It is considered that the compound is Permitted Development under Class A of Part 4 (Temporary Buildings and Uses) of Schedule 2 of the Town and Country Planning GPDO (2015) which states that:

"The provision on land of buildings, moveable structures, works, plant or machinery required temporarily in connection with and for the duration of operations being or to be carried out on, in, under or over that land or on land adjoining that land."

Table 1: Proposed items for the Budds Farm WTW development

Item No.	Item of Development	Description	Planning Requirement	Height (m) (Above Local Ground Level)	Width (m)	Length (m)	Material	Finish	Foundation Depth (approx) (m)
1	CHP Kiosk	Kiosk containing the CHP engine with associated exhaust stack	Permission Required	8.3m (Exhaust stack)	2.99m	12m	Steel	Dark Green 14C39 to BS4800	300mm
2	CHP Dry Air Cooler (DAC)	Free standing engine cooling radiator	Permitted Development	2	1	4.7	Steel	Dark Green 14C39 to BS4800	n/a
3	CHP Gas Booster	Skid mounted gas boosters	Permitted Development	0.5	4.2	6	Steel	Untreated	n/a
4	Intercooler		Permitted Development	1.8	1	3.2	Steel	Dark Green 14C39 to BS4800	n/a
5	Transformer	To assist with power supply	Permitted Development	2.2	4	4.8	n/a	Battleship Grey	n/a
6	Temporary Contractors Compound	The compound will consist of cabins for contractor's welfare facilities, storage cabins and parking / material storage areas.	Permitted Development	The compound area will take up an area of approximately 325m ² within the WTW boundary.					

3.7 Construction Programme

Construction activities will be limited to between 07:00 to 18:00, Mondays to Fridays and 07:30 to 13:00 on Saturdays. There will be no work on Sunday or bank holidays.

In the event that longer working hours are necessary it would be appreciated if the grant of planning permission would allow a variation in working times with the agreement in writing of the Planning Authority.

The scheme will be completed in stages as shown in **Table 2**.

Table 2: Proposed construction programme

Project Task	Time Programmed
Commencement of site mobilisation: Setting up site compounds and storage areas and topsoil stripping.	Late summer / early autumn 2016
Commencement of construction phase - to include new excavation and construction of new structures	Autumn 2016
Completion of commissioning of new works	Winter 2016 / Early 2017
Completion of site demobilisation and reinstatement of compound.	Spring 2017

3.8 Materials Management

Detailed matters concerning construction waste will be addressed at the implementation stage by the Applicant with their appointed contractors as part of the site management organisation. The development process will seek to ensure that the creation of waste is minimised and that every effort is made to avoid needless waste generation.

Surplus materials will be taken off site under the appropriate waste classification by a licensed waste carrier and disposed of at a licensed waste facility.

Any waste materials from the proposed development will be managed in accordance with the Environmental Protection Act (1990) and the waste handling procedures under the contractor's project environmental plans.

3.9 Hazardous Materials

There will be no change to the hazardous materials currently kept on site for operational purposes upon completion of this development.



Diesel is stored in bunds on areas of hard standing in accordance with guidance detailed in The Control of Pollution (Oil Storage) (England) Regulations (2001) and/or EA Pollution Prevention Guidelines (PPG 2) 2004 Above Ground Oil Storage Tanks and PPG 26 (2011) Drums and intermediate bulk containers.

Spill kits are kept on site and members of staff trained in their use.

3.10 Traffic Management and Access

3.10.1 Existing Traffic Movements

There are currently traffic movements to and from the site associated with the operation of the WTW. These traffic movements consist of cars, light vans and tankers.

Site traffic accesses the site from the existing access into the WTW off Southmoor Lane and typically via Harts Farm Way and the A27.

3.10.2 Traffic Movements During Construction

During the mobilisation phase of construction, there will be approximately 5 two way Heavy Goods Vehicle (HGV) visits per week. There will be approximately 10 (5 in - out) light van/vehicle movements a day for construction staff. These movements are associated with setting up of the site compound and delivery of plant and equipment.

In the construction phase, vehicle movements will consist of daily access to the site from site personnel and delivery of plant, machinery and equipment. Typically this will be 10 light vehicle movements per day (5 two way movements) 6 HGV movements per day (3 two way) and one concrete wagon per day (two movements - although this will only be for part of the construction period).

Parking for the vehicles will be accommodated within the WTW site where sufficient space can be provided for loading and storage and accommodating necessary temporary welfare facilities, site office etc, parking space for site operatives and visitors.

There will be no construction traffic associated with the scheme on Sundays or Bank Holidays (unless otherwise agreed in writing with the Planning Authority). Traffic



movements will be managed in accordance with best practice and incorporated within the contractor's project environmental plan.

Construction traffic will access the site from the existing access into the WTW off of the Southmoor Lane. The additional HGV traffic can easily be accommodated by the access during the construction period. A practical approach to vehicles entering and leaving the site will be implemented by the contractor to avoid any delays occurring outside the site.

Every reasonable effort will be used to ensure that deliveries take place outside of school drop-off and pick-up times and outside of peak traffic hours. However a degree of flexibility with these time bands will be required should there be an unplanned event (such as late delivery of concrete) or an emergency situation that would require site presence and activity beyond those times. This would however be exceptional. If the Council considers that an hours of use condition is required, it is requested that this makes allowance for unplanned and emergency use.

3.10.3 Traffic Movements during Operation

On completion, the operation of the CHP System will be monitored remotely. Operational traffic movements to the WTW will not increase beyond existing levels and will continue to be purely for operational and maintenance operatives.

3.11 Construction Management

The contractor's project environmental plan will be prepared as part of the proposed development to be used on site to manage and minimise the potential environmental impacts of construction activities. The plan is compiled by the site construction manager with inputs from the planning, public relations and environmental teams.

Good working practices will be stipulated in the plan that will form part of the contract with the civil engineering contractor and will be audited and enforced by Southern Water.

3.12 Wheel washing facilities

This will be provided within the site in accordance with standard contractors practice.

3.13 Site Lighting



Permanent external lighting at the site will be required during its operation. Lighting units/luminaires will be selected that are appropriate for their location to reduce light spill and glare to a minimum as per recommendations specified in the Institution of Lighting Engineers (ILE) Guidance Notes (GN) for the reduction of obtrusive light (GN01) (ILE, 2011).

Specifically designed lighting equipment shall be selected that minimises the upward spread of light near to and above the horizontal.

All Lighting shall comprise low energy LED Luminaires, with day-light sensing control. Lux levels shall be in accordance with the Chartered Institute of Building Services Engineers (CIBSE) Lighting Guide (LG) 01 (2012) and LG7. Lighting circuits shall be sourced from a dedicated lighting distribution boards.

The external lighting will be internally focused and low level within the site and will only be used where necessary to facilitate operation staff, it will typically only be used during the beginning and end of the working day during the darker winter period and would be turned on when not required. It is not considered that it will have any adverse impact on the surrounding area.

3.14 Site Restoration

All areas temporarily impacted upon by the proposed development will be reinstated to their existing condition upon completion of the development.

4 POTENTIAL IMPACTS ON THE ENVIRONMENT

A Southern Water ecologist carried out a preliminary ecological appraisal of the site and its surrounds to identify any ecological constraints associated with the proposed works. The site visit identified the habitats and features of ecological interest, including any evidence of protected species or their habitats. In addition to the site visit, a desk study was conducted to determine any known ecological constraints within or close to the site. A search of the MAGIC (Multi-Agency Geographic Information for the Countryside) website and local council website was undertaken to obtain information on any designated sites close to the site. Information was also obtained from Southern Waters GIS constraints tool.

The preliminary ecological appraisal is based on drawing JN.639168.OZ0732 – site layout plan.

4.1 Designated sites

The southern part of the site is adjacent to the Langstone Harbour Site of Special Scientific Interest (SSSI) and the Chichester and Langstone Harbours Ramsar, Special Protection Area (SPA) and the Solent Maritime Special Area of Conservation (SAC). Works to construct the kiosk will be in the northern part of the site approximately 250m from the designated boundary.

Manor Farm and Broadmarsh Playing Field are located 800m and 400m from the working area and are Sites of Nature Conservation Importance (SNCI) which are classed as non-statutory designated sites.

The work within the WTW site is very minimal and will take place within the operational areas of the site and will not affect any statutory or non-statutory designated sites.

4.2 Site Description

The majority of the site is mostly made up of buildings and concrete structures with areas of hardstand. The western part of the site contains scrub and tall ruderal habitat mostly containing bramble scrub and larger areas of nettle beds.



The southern part of the site contains three large lagoons that are known to be important areas for wintering wildfowl species that use the lagoons as high tide roosts.

The area where the kiosk is proposed is all within hardstand and will not affect any habitats of ecological importance.

4.3 Assessment

The site's ecological value has been evaluated broadly following guidance issued by the Chartered Institute of Ecology and Environmental Management (CIEEM 2013)¹, which ranks the nature conservation value of a site according to geographic scale of reference: international, national, regional, county/metropolitan, district/borough, local/parish or of value at the site scale. In evaluating the nature conservation value of the site the following factors were considered: nature conservation designations, species/habitat rarity, naturalness, fragility and connectivity to other habitats.

All works as shown on the design drawings are minimal and will take place within areas of hardstand within operational areas of the site and will not affect any habitats of ecological value.

Works will not affect any nature conservation designations. No rare or habitats of principal importance will be affected by proposed works.

The majority of the site contains habitats that have very limited potential to support protected species, for example, operational areas, hardstand and mown grass. Works are confined to operational areas within the site within areas of hardstand and the potential for the works to impact on protected species is low.

The Budds Farm WTW site is currently considered of value within the immediate vicinity of the site only, but the lagoons within the southern part of the site are considered of local value due to supporting wintering birds, however, no works will affect the lagoons.

¹ Guidelines for Ecological Impact Assessment in the UK (2013). Chartered Institute of Ecology and Environmental Management



4.4 Archaeology and Cultural Heritage

A review of mapping produced by Havant Borough Council (HBC) indicates there are no scheduled monuments present at or in vicinity of the proposed development and wider WTW site.

Online mapping produced by HBC indicated that there were no conservation areas or areas of archaeological interest at or in the vicinity of the proposed development and wider WTW site. Given the works are being undertaken on an area within the existing works it is considered that the risk of encountering archaeological remains on the site are low.

In the event that items of archaeological interest are found during the excavation works, the works will stop and Hampshire County Council archaeologists will be contacted.

4.5 Landscape and Visual Assessment

The WTW site is located in a largely commercial area. To the north of the site lies the Havant lorry park, to the west of the site lies an area of parkland beyond which are commercial units, an aggregate processing facility, electricity sub station and small boat dockyard beyond the Solent Way. To the south of the site, a further area of parkland is bounded by the Solent Way. To the east of the site lies a large commercial park with a variety of business units including Langstone Technology Park. Those units located closest to the WTW accessed from Southmoor Lane include a car and van rental agency and repair centre.

Much of the site is screened from view by a mature tree line which runs along the eastern, northern and sections of the western boundaries, although elements of the taller plant can be seen beyond these. Similarly, an established band of trees screen the site to the south limiting views into the site from the adjacent park area. The Solent Way footpath runs along the coastline to the north, west and east of the site, however views into the site itself are relatively limited given the existing tree screening which runs adjacent to much of the footpath.

The kiosk and air intakes will be well screened by much of the existing processing works, most notably the large digesters and dryer building which are situated adjacent to the proposed application site. The exhaust flue may be visible in part



from outside of the site, however given its slim design and finish and the back drop of existing plant it will sit against, it is not considered that it will have any negative impact on the overall surrounding setting in the context of the wider WTW site.

4.6 Odour and Dust

The new CHP engine and container along with the radiator and supporting equipment will not generate any notable level of odour. A flue is required to discharge exhaust gas that can be generated by the system. The flue is designed at the proposed height to ensure that an appropriate level of dispersion can occur when exhaust gas is discharged. The height will ensure there is no adverse impact in terms of odour at ground level.

During construction there is a risk of nuisance dust emissions which are associated with the excavation and handling of materials. Normal site practise of dust control by wetting dust generating activities or areas, covering stockpiles of excavated material and wheel washing practices will be carried out if necessary. These will be incorporated within the CEMP (Construction Environmental Plan). After the construction has been completed there will be no increase in odour and dust from the site.

4.7 Noise

The WTW is located in a commercial area with minimal noise receptors located in the vicinity. The surrounding uses are not considered to be noise sensitive. There are no residential properties located within the vicinity of the site.

The CHP engine will be contained within an acoustic limiting container which will ensure that there is no adverse impact in terms of noise to the nearest public points east of the site.

The CHP System installation shall be provided with sound attenuation on the exhaust silencers, engine air intake and air outlet louvres to ensure that noise levels are less than those specified within the UK's Control of Noise at Work Regulations i.e. the lower exposure action level of 80 dB(A) @ 1m when measured at any point from the external surface of the CHP System(s) enclosure.



Set in the context of the surrounding uses, the proposed use is not considered to have any detrimental impact in terms of noise.

4.8 Controlled Waters

4.8.1 Groundwater

The proposed development is not located within a groundwater source protection zone (SPZ).

The construction works will be carried out in accordance with the contractor's project environmental plan to ensure no pollutants enter the groundwater system.

4.8.2 Surface Water

There are no surface water bodies located in close proximity to the proposed development. Run-off or spillages from construction activities will be avoided through careful site management guided by the contractor's project environmental plan which will follow EA pollution control guidelines.

Surface water drainage systems on the site will remain unchanged.

4.9 Flood Risk

The WTW site is located in an area assessed by the EA as a Flood Zone 3 given its proximity to the River Thames. The flood mapping also demonstrates that it is an area that benefits from existing flood defences.

The proposed works are small in nature and set within the existing operational site on an area of hard standing. It is not considered that the proposed kiosk, which will replace the existing CHP plant, will have any adverse impact in terms of flood risk.

4.10 Local Disturbance

No impact is envisaged from the operation of the WTW site, surrounding businesses may be subject to minor noise disturbance during construction from machinery and vehicle movements, however in the context of the surrounding commercial uses this is unlikely. This will be minimised by good working practices such as avoidance of night-time and weekend working.



Due to the nature of work being carried out and the available site access, no disturbance to local road users is expected during construction within the WTW site.

5 CONCLUSION

The proposed additional CHP engine and associated ancillary plant at Budds Farm is part of a wider CHP investment strategy. Due to the predicted population growth in the region the volume of waste water treatment is forecast to increase resulting in higher levels of sludge treatment and biogas production. To ensure that we maximise the benefit of this renewable fuel we are proposing to install as second CHP unit at the site. Other drivers include targeted improvement to our operational efficiency and our contribution to the National Renewable energy target.

It is assessed that the proposed development is in keeping with the existing development and setting of the WTW and that the proposed development will not materially impact any surrounding sensitive receptors, throughout either the construction and operational phases.

There are no significant impacts associated with the proposed development. It is considered that the proposed development does not constitute an EIA development.

Good working practices and careful supervision during construction will ensure that potential risks to identified sensitive receptors will be minimised and impacts prevented.

These practices will be stipulated and addressed in the contractor's project environmental plan. Southern Water processes also ensure good site management during operation and compliance with existing environmental permits, licences and consents.

In order to meet the tight project programme, we would be grateful to avoid any pre-commencement conditions being imposed on any approval. We are happy to discuss any outstanding issues during the determination period to, where possible, avoid pre-commencement issues being imposed.