Planning Application to Install and Operate an MCC Kiosk and Standby Generator Enclosure part of an upgrade of the Byfield Sewage Treatment Works

Design & Access Statement Inc. Planning

July 2011
PLANNING APPLICATION TO INSTALL AND OPERATE AN MCC KIOSK AND STANDBY GENERATOR ENCLOSURE, PART OF AN UPGRADE OF THE BYFIELD SEWAGE TREATMENT WORKS

DESIGN & ACCESS STATEMENT INCORPORATING PLANNING

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THAMES WATER UTILITIES LTD

PLANNING APPLICATION TO INSTALL AND OPERATE AN MCC KIOSK AND STANDBY GENERATOR ENCLOSURE, PART OF AN UPGRADE OF THE BYFIELD SEWAGE TREATMENT WORKS

PLANNING STATEMENT INCORPORATING DESIGN & ACCESS

1. INTRODUCTION

Purpose

1.1 This Statement has been prepared by Black & Veatch Ltd on behalf of Thames Water Utilities Ltd, hereafter referred to as Thames Water, in support of Thames Water’s planning application to install and operate a motor control centre (MCC) Kiosk and standby generator enclosure at the Byfield Sewage Treatment Works (STW). The MCC kiosk and standby generator enclosure form part of a scheme to upgrade the treatment facilities at the STW. The other components of the upgrade scheme are permitted development and do not therefore form part of this planning application.

1.2 Section 42 of the Planning and Compulsory Purchase Act 2004 requires that a statement covering design concepts and principles, as well as access issues, be submitted with an application for planning permission. The purpose of the statement is to allow applicants to demonstrate an integrated approach that will deliver inclusive design and address a full range of access requirements through the design process.

1.3 Circular 01/2006 ‘Guidance on Changes to the Development Control System’, describes a design and access statement as being a “short report accompanying and supporting a planning application to illustrate the process that has led to the development proposal and to explain and justify the proposal in a structured way”.

1.4 The guidance contained in Circular 01/2006, the Town and Country Planning (Development Management Procedure) (England) Order 2010, the CABE publication ‘Design and Access Statements; how to read, write and use them’ and the Defra guidance ‘Designing Waste Facilities a guide to modern design in waste’, have been drawn upon in the preparation of this Statement.

The Applicant

1.5 Thames Water is a statutory water and sewerage undertaker and the UK’s largest water and wastewater services company. Thames Water serves around 13 million customers across London and the South East.

1.6 To enable the company to continue meeting its statutory duties to treat sewage, it has appointed Black & Veatch Ltd as its principal contractor with responsibility for carrying out capital improvements to treatment works throughout the Thames Valley over the next five years.
The Decision Making Framework

1.7 Byfield STW is located within the administrative area of Northamptonshire County Council, which is the relevant waste planning authority responsible for determining the planning application.

1.8 This Statement accompanies the planning application that has been prepared for that MCC kiosk and standby generator enclosure. The other components of the upgrade scheme are permitted under Schedule 2 part 16 Class A (e) of the Town and Country Planning (General Permitted Development) Order 1995 (as amended).

Environmental Impact Assessment

1.9 Byfield STW is not located within a ‘sensitive area’ as defined in the Town and Country Planning Environmental Impact Assessment Regulations 1999 (as amended) (the EIA Regulations) and the proposed area of development does not exceed 1000 m$^2$. Therefore it is concluded that the proposals do not comprise of Schedule 1 or 2 development as defined in the EIA Regulations and neither an EIA Screening Opinion or EIA is required.

Land Ownership

1.10 Drawing B067-A1-00690 illustrates Thames Water’s land ownership at the Byfield STW and the footprint of the proposed MCC kiosk and standby generator enclosure. The proposed development is entirely contained within Thames Water’s land ownership and therefore the planning application is accompanied by Certificate A.

1.11 The site is ‘operational land’ as defined in the Town and Country Planning Act. Operational land is specifically used and held for the purposes of carrying out Thames Water’s statutory undertaking.

Format of the Statement

1.12 This statement outlines the background to the proposed upgrade scheme and describes the scheme components that are the subject of the planning application. It describes the relevant policy background and provides an appraisal of the proposed scheme against planning policy. It includes a design component and access component.

2. THE NEED FOR THE SCHEME

Introduction

2.1 Byfield STW is a small-scale sewage treatment works, which is located to the south east of village of Byfield, approximately 17 km north of Banbury. It treats sewage generated from the villages of Byfield and Woodford Halse; a catchment of approximately 4900 people.

2.2 The upgrade scheme is needed to improve the standard of sewage treatment provided in accordance with a new discharge consent set by the Environment Agency. The upgrade scheme will enable treated effluent to be discharged from
the STW without polluting the environment and will thereby satisfy Thames Water’s statutory responsibilities.

Statutory Responsibilities

2.3 Thames Water is the licensed sewerage undertaker for the Byfield and Woodford Halse area. As such it has a statutory duty under the Water Industry Act 1991 to provide, improve and extend a system of public sewers and effectually deal with the contents of those sewers. This duty is enforceable by the Secretary of State and the industry’s financial regulator, the Water Services Regulations Authority (Ofwat).

2.4 Individual discharges of sewage effluent are regulated by the Environment Agency, which is the statutory body responsible for determining and issuing discharge consents. Those consents set limits on the polluting load discharged, and are the detailed means by which UK and European policies (such as Directives) are implemented.

The Current Treatment Process

2.5 The treatment process currently provided at Byfield STW broadly incorporates the following stages:

Preliminary Treatment – sewage enters a balancing tank, which controls the rate of flow through the STW. The sewage passes through screens, which remove rag and large material.

Primary Treatment - The screened effluent then flows into primary settlement tanks (PSTs) where the solids (sludge) settle out, this is called primary treatment. The sludge is then fed into holding tanks before being tankered to another STW for further treatment.

Secondary Treatment - From the PSTs the effluent is then subject to secondary treatment which is designed to degrade the biological content of the sewage. The effluent is distributed across filters where bacteria consume the biodegradable matter and nitrogen is then removed. Residual filter material is settled out from the effluent in sedimentation tanks.

Tertiary Treatment – The treated effluent is subject further treatment to remove nitrogen and is then discharged into Byfield Brook.

The Upgrade Scheme

2.6 In response to the requirements of The Water Framework Directive, the Environment Agency has set a new tighter discharge consent for the Byfield STW, which must be met by 31st March 2012. The upgrade scheme is necessary to enable the STW to comply with that consent.

2.7 The upgrade scheme involves installing additional tertiary treatment sand filtration beds. These are designed to remove residual suspended matter from the treated effluent, which will enable the STW to meet the new ammonia, suspended solids and biological oxygen demand limits for discharges from the site.
2.8 The proposed MCC kiosk will house the electrical and instrumentation controls necessary to operate the new deep bed sand filtration beds that are being installed under permitted development rights. The purpose of the proposed standby generator and fuel tank enclosure is to ensure that in the event of a power failure the STW can continue to operate, so that sewage is properly treated prior to discharge into the environment. The standby generator will therefore only run during power failures and for 1 hour a month for maintenance purposes.

3. BACKGROUND

3.1 The proposed development will be sited on operational land at Byfield STW and will form an integral part of the sewage treatment process.

3.2 Byfield STW is located to the south east of the village of Byfield. It is accessed via a tree lined concrete access road from Eydon Road. The site is surrounded by agricultural land.

3.3 Thames Water has continued to invest in upgrades at the Byfield STW to ensure that it meets regulatory requirements. These improvements have been delivered using Thames Water’s permitted developments rights.

4. PROPOSAL

The Design Component

4.1 The design component of this Statement outlines the design process that has been undertaken in the context of the physical, social and economic environment of the site and its surroundings. This includes descriptions of the amount of development proposed, the layout, the scale, and the appearance of the proposed MCC kiosk and standby generator enclosure.

Description of Development

4.2 The permanent works comprise of the following:

Scheme components for which planning permission is required:

- Kiosk housing a new sand filter MCC panel, and
- Standby generator and fuel tank installed in an enclosure.

Scheme components which are permitted under the General (Permitted Development) Order 1995 (as amended) (GPDO):

Part 16, Class (e) 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:

- An eight cell sand filter unit (1.5m diameter x 4.2m high), part of the tertiary treatment process.
- Power upgrade
- Connecting pipework and cabling
- Reprofiling of excavated material on the site.

Scheme components which are permitted under the GPDO 1995 (as amended):

Part 4, Class A 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.

- A temporary materials storage area and construction site compound will be located on land within the STW boundary.

4.3 Drawing B067-A1-00690 illustrates the locations of the permitted and proposed development.

**The Design Process**

4.4 The design rationale for the scheme has been informed and constrained by:

- Operational parameters, including the layout of the existing STW and the location and function of plant;
- The nature and volume of sewage flow that requires treatment;
- Seasonal weather variations, wet weather and climate change, which result in fluctuations of sewage flows to treatment;
- The importance of providing robust tried and tested plant due to the implications of plant failure;
- The aim to minimise energy requirements;
- The need to provide a safe and secure working environment for Thames Water operatives and contractors, and to ensure public safety;
- The existing topography, ground conditions and above-ground features;
- The context of the surrounding landscape;
- The potential environmental and economical effects of the construction and operation of the scheme;
- Making effective use of physical resources, including the use of established infrastructure and an operational site;
- The unique way Thames Water is funded to deliver the scheme. Ofwat, the economic regulator of water companies, sets annual price limits and seeks to ensure value for money for customers.

4.5 Providing a safe and secure working environment for the construction team and the operators of the scheme, and ensuring public safety has been integral to the development of the engineering design. The safety considerations that affect the construction and operation of the scheme, include:

- Working with sewage;
- Working at height;
- Working in confined spaces;
- Working with electrical and mechanical equipment;
- Preventing unauthorised access.

**Amount**

4.6 Byfield STW site is approximately 22.3 ha. The proposed new MCC kiosk and standby generator enclosure have a total footprint of 14.8m² (Refer to drawings B067-A1-00681 and B067-A1-00682).

4.7 The footprint and location of the new infrastructure is dictated by the function it needs to perform to control operation of the sand filters, the need to carryout regular routine maintenance of plant, and the requirements of health and safety legislation. The amount of development proposed is small in relation to the existing site infrastructure, and will not extend beyond the footprint of the operational site. The proposed MCC kiosk and standby generator enclosure is considered to be appropriate in size in respect of both its functional requirements and the existing site.
Layout

4.8 The proposed MCC kiosk will be located near NSAF unit towards the western boundary of the site. The new generator and fuel tank enclosure will be located adjacent to the administration building, towards the centre of the site.

4.9 The layout is a product of the function it needs to perform in the treatment process, the need to carry out regular routine maintenance of plant and the requirements of health and safety legislation.

Scale

4.10 Drawing B067-A1-00690 illustrates the relationship between existing site structures; those components of the scheme that are permitted under the GPDO, and the MCC kiosk and standby generator enclosure, which are the subject of this planning application. The dimensions of the proposed MCC kiosk are 2m long, 0.5 m wide and 3 m high; the dimensions of the standby generator enclosure are 6.5m long x 2.8m wide x 3m high.

4.11 The scale of the kiosk is a function of electrical control equipment it will contain, the size of which is determined by many variables, including the volume of sewage to be treated, which is a consequence of the size of the catchment; and the plant necessary to achieve the standard of treatment to meet Regulatory requirements. Similarly the size of the enclosure is a function of the size of the standby generator and fuel tank that it will house.

Landscaping

4.12 Byfield STW is surrounded by agricultural land. The site is effectively screened by mature trees and vegetation that line the access road and form agricultural field boundaries in the surrounding countryside.

Appearance

4.13 The proposed MCC kiosk will be similar in appearance and no higher than the existing nearby kiosk. It will be weatherproof and constructed of fire retardant resin bonded glass fibre encapsulating insulation material. The kiosk will incorporate a sloping roof to facilitate drainage and prevent build-up of water. It will be dark green in colour, which is the colour of other kiosks on the site.

4.14 The standby generator enclosure will be an ISO style steel acoustic container. The kiosk will incorporate a sloping roof to facilitate drainage and prevent build-up of water. It will be dark green in colour, which is the colour of other kiosks on the site.

4.15 The proposed design conveys the common architectural language of this fully operational sewage treatment works, which includes concrete and metal structures, flat roofed brick buildings and dark green kiosks.

Construction Timetable and Hours of Working

4.16 It is estimated that the construction of the upgrade scheme will be carried out over a 5 month period. The following indicative sequence of construction activities is anticipated:

- Establish site compound and working area – 1 week;
- Excavations – 2 weeks;
- Construction – 16 weeks;
- Installation of plant and equipment – 11 weeks;
- Commissioning and testing – 7 weeks;
4.17 The normal construction working hours will be from 07.00 - 18.00 Monday to Friday, and 07.00 – 14.00 on Saturday. There will be no work carried out on Sundays or Bank Holidays. Working outside of these hours will be infrequent.

4.18 Construction of the proposed scheme will be managed through the implementation of a Site Environmental Plan (SEP). The SEP sets out the identified environmental actions pre-construction, during construction and post-construction.

**STW Operational Working Hours**

4.19 Byfield STW operates on a 24-hour basis throughout the year, and it will continue to do so once the upgrade scheme is commissioned. The proposals are therefore consistent with the existing land use and hours of operation of the STW.

**The Access Component**

4.20 The access component of this statement explains the vehicular and transport links to the development and how the principles of inclusive design, including the specific needs of disabled people, have been integrated into the scheme.

4.21 Circular 01/2006 advises, “the requirement for the access component of the statement relates only to ‘access to the development’ and therefore does not extend to internal aspects of individual buildings”.

**Planning Policy and Guidance**

4.22 The following relevant planning policies and guidance have been reviewed and used to inform the access arrangements for the proposed scheme:

- Planning Policy Statement 1: Delivering Sustainable Development provides the key principles for local planning authorities to make decisions on planning applications.
- Planning Policy Guidance 13: Transport

**Vehicular and Public Transport Access to and within the Site**

4.23 Byfield STW is accessed from Eydon Road.

4.24 Within the STW a network of footpaths provide Thames Water operatives with easy access to all the buildings and plant currently installed on site.

**Safety, Security and Emergency Access**

4.25 For security and safety reasons, the site is only accessible to employees of Thames Water and its contractors who are involved in the operation of the STW or in routine maintenance. Health and safety requirements govern access and movement around the STW. Routine maintenance and servicing associated with the site and plant is undertaken in accordance with the site operating procedures and in accordance with health and safety policy. The upgrade scheme has been designed to allow all parts of the plant to be served in a safe and secure manner.

**The Disability Discrimination Act 1995 (DDA)**

4.26 The DDA places positive duties on organisations and employees to think carefully about the needs of people with disabilities. It ensures that employers have to make reasonable adjustments to the workplace to ensure disabled workers are not disadvantaged.

4.27 In formulating the proposals, Thames Water has had regard to both the relevant provisions of the DDA and to its own written Disability Policy. Thames Water
seeks to meet the highest standards of accessibility and inclusion within its proposals, within the parameters of the safety and security of its operational infrastructure.

4.28 The layout and form of the MCC kiosk and the standby generator enclosure are primarily determined by their function. Both structures will be accessible from ground level and will not require ladders and external staircases to operate, inspect and maintain. Due to the nature of the proposal, the residual health and safety risks for disabled employees and the costs involved, it is considered unreasonable for Thames Water to provide disabled access to all buildings and structures.

5. CONSULTATION

5.1 B&V wrote to Byfield Parish Council on 12 July 2011 to offer to meet with them to discuss the proposals in detail.

6. DEVELOPMENT PLAN POLICIES

6.1 The statutory development plan, together with Government policy on sustainable development, national Planning Policy Guidance (PPGs) Notes and Statements (PPSs), and other statutory and non-statutory guidance documents have been used to inform the design of the permitted scheme and the proposed MCC kiosk and standby generator enclosure.

6.2 Planning authorities are required in determining applications to have regard to the provisions of the development plan, so far as material to the applications; to any other material planning considerations, and to take into account any representations made to them.

6.3 This section of the Statement identifies the statutory development plan, relevant national policy and guidance and emerging policies that are material.

National Planning Policy

6.4 The following policy statements and guidance have informed the design process for the scheme:

- Planning Policy Statement 1: Delivering Sustainable Development
- Planning Policy Statement: Planning and Climate Change - supplement to PPS 1
- Planning Policy Statement 7: Sustainable Development in Rural Areas
- Planning Policy Statement 9: Biodiversity and Geological Conservation
- Circular 06/05: Biodiversity and Geological Conservation
- Planning for Biodiversity and Geological Conservation: A Guide to Good Practice
- Planning Policy Statement 10: Planning for Sustainable Waste Management
- Planning for Sustainable Waste Management:
- Planning Policy Statement 23: Transport
- Planning Policy Statement: Planning and Pollution Control
- Planning Policy Guidance 24: Planning and Noise
6.5 The statutory development plan comprises of the East Midlands Regional Plan (March 2009) and the adopted Development Plan Documents in the Northamptonshire Mineral and Waste Development Framework (MWDF).

6.6 The East Midlands Regional Plan policies of relevance to determination of this planning application include:

- Policy 1: Regional Core Objectives
- Policy 2: Promoting Better Design
- Policy 32: A Regional Approach to Water Resources and Water Quality

6.7 The MWDF policies of relevance to determination of this planning application include:

- **Core Strategy Development Plan Document (May 2010):**
  - Policy CS1: Northamptonshire’s waste management capacity
  - Policy CS7: Sustainable design and use of resources
  - Policy CS9: Encouraging sustainable transport movements
  - Policy CS11: Safeguarding waste management and minerals related development from alternative uses
  - Policy CS14: Addressing the impact of proposed minerals and waste development

- **Locations for Waste Development, Development Plan Document (March 2011):**

- **Control and Management of Development, Development Plan Document (June 2011):**
  - Policy CMD1: Development criteria for waste management facilities (non-inert and hazardous)
  - Policy CMD7: Natural assets and resources
  - Policy CMD8: Landscape character
  - Policy CMD10: Layout and design quality

7. **ASSESSMENT**

7.1 This section of the Statement considers the principle of the development and addresses the following main planning and environmental issues against relevant planning policy:

- Whether the proposal accords with the Development Plan;
- Whether the proposed development is in accordance with National Planning Policy and Guidance and emerging Development Plan policy, and
- Whether there are any landscape and visual impacts, ecology, amenity (noise and dust), flood risk, highway safety, traffic, or archaeology issues.

**Development Plan**

7.2 In accordance with Regional Policy 1, the proposals seek to protect and enhance the environment by improving standard of sewage treatment provided at Byfield STW. Delivery of the upgrade scheme will therefore reduce the impact of discharges of treated effluent on the environment.
7.3 In accordance with Regional Policy 2 the design seeks to make use of previously developed operational land and to minimise energy use through the use of efficient plant and equipment.

7.4 In accordance with Regional Policy 32 the proposals seek to deliver the timely provision of appropriate wastewater treatment infrastructure whilst avoiding adverse impacts on nature conservation. Improving the standard of sewage treatment will protect and reduce the risk of pollution from treated effluent discharges and improve the water quality of the Byfield Brook. The nature conservation value of the STW and surrounding area has been assessed and implementation of a Site Environmental Plan will minimise the potential impacts of construction on nature conservation.

The Minerals and Waste Development Framework:
Core Strategy Development Plan Document, May 2010

7.5 Policy CS1 supports the development of a sustainable waste management network to support growth within Northamptonshire. The policy acknowledges this will involve the provision of waste management facilities and advises that provision will come from a mix of extensions to existing sites, intensification or redevelopment of existing sites and new sites.

7.6 In accordance with Policy CS7 the upgrade of the Byfield STW seeks to utilise efficient use of resources through the improvement of an existing sewage treatment facility and development of operational land. The design incorporates the use of energy efficient plant and equipment.

7.7 Byfield STW is an existing operational waste management site that is safeguarded from development of alternative non-waste management uses under Policy CS11.

7.8 In accordance with Policy CS14 construction of the scheme will be managed through implementation of a Site Environmental Plan, which seeks to minimise the environmental impacts of construction and to protect natural resources. Operation of the scheme will result in improvements in the quality of discharges from the STW, which will benefit the local environment. Therefore in accordance with Policy CS14 it is considered that operation of the scheme will not harm natural resources or local amenity; the proposed design and layout has regard to the visual appearance in the context of the defining characteristics of the local area, and the existing site access is considered to be safe.


7.9 This DPD is concerned only with allocations; it does not specifically include commitments (i.e., sites with planning permission or equivalent) for waste related development. The DPD does however acknowledge that those "commitments make a fundamental contribution in delivering the waste infrastructure that will enable the treatment of Northamptonshire’s waste to 2026, and for the MWDF to meet its objectives". It also notes that Core Strategy seeks to safeguard waste sites from alternative non-waste uses through Policy CS11. Byfield STW is identified as a commitment for waste management and disposal. The DPD advises that ‘commitments’ confers a favourable status on these sites for a continuation of waste use where this meets the intent of the MWDF strategy and policies, and is in accordance with national planning policy.

Control and Management of Development, Development Plan Document, June 2011

7.10 The DPD highlights, “it is essential that adequate sewage and waste water infrastructure is in place prior to development taking place in order to avoid
unacceptable impacts on the environment...", paragraph 3.32. Proposals for works at existing STWs are assessed in line with Policy CMD1: Development criteria for waste management facilities (non-inert and hazardous).

7.11 In accordance with policy CMD1 the proposed scheme will facilitate delivery of Northamptonshire’s waste management capacity requirements. There is a clear need for the facility in order to meet the requirements of a new discharge consent set by the Environment Agency. The proposals are in general conformity with the principle of sustainability in that the scheme integrates and co-locates facilities together and with complementary sewage treatment activities. It maximises the use of operational land, including previously development land at the site, and implementation of the scheme will be result in improvement in the quality of the discharges from the site, which will benefit the surrounding environment.

7.12 In accordance with Policy CMD 7 the proposals will not adversely affect any regional or locally designated sites or other features of local interest.

7.13 The STW is surrounded by agricultural land and is well screened by mature trees and vegetation. Therefore it is considered that in accordance with Policy CMD 8 the proposals will not adversely impact the local character and distinctiveness of the landscape in this area. The proposals are located on operational land, are small in scale and positioned close to other STW plant and buildings, therefore it is concluded that in accordance with Policy CMD10 the proposed layout and overall appearance of the facilities relates well to the neighbouring plant and buildings.

7.14 It is concluded that the proposals accord with the Development Plan and with National Planning Policy and Guidance.

Other material considerations

Landscape and visual impact

7.15 The closest residential property is approximately 500 m to the north west. A public right of way follows a route between Byfield Farm and Hinton approximately 500m to the north of the STW. The STW is well screened by existing mature trees and vegetation and the surrounding agricultural land. Distant, partial views of STW can be gained across agricultural land and through vegetation from the public highway.

7.16 The proposed works, which are small in scale, confined to the existing operational area of the STW, and which will be largely screened by existing buildings and equipment at the site, will not adversely affect the local landscape character.

Ecology

7.17 An appraisal of the site has been carried out by a qualified ecologist, this reports:

- There are no sites of international or national nature conservation value within 2km of the STW.
- Potential reptile habitat has been identified. If construction commences during March – October two-stage strimming of potential reptile habitat will be carried out prior to construction, which will enable reptiles to safely disperse. This work will be supervised by a qualified ecologist.
- Historic records indicate that badgers forage on the site. Any foundations or pits dug for construction purposes will be fenced off overnight to stop badgers becoming trapped within them.
Amenity (noise, dust, odour)

7.18 The closest residential property is approximately 500 m to the north west. The STW is well screened. Construction activities will be managed through implementation of a Site Environmental Plan (SEP). The SEP will include measures to manage to construction activities in accordance with BS 2558-1:2008 Code of practice for noise and vibration control on construction and open sites: Noise. Also dust suppression methods will be employed, such as dampening down excavated material and on-site speed limits to avoid excessive dust disturbance.

7.19 The proposals relate to an upgrade of the tertiary treatment facilities, therefore it is not anticipated that the proposed scheme will generate additional odour.

Flood risk

7.20 The STW is partially in the Environment Agency defined flood zone. However the proposed works will take place outside of the floodplain.

Highway safety, traffic

7.21 Byfield STW benefits from an existing safe access onto the public highway that requires no improvement. It is anticipated that the construction activities will generate on average 4 HGV movements per day for a 6 week period. The timing of large construction vehicles/plant deliveries to the site will be carefully managed.

Archaeology

7.22 There are no archaeological sites in the vicinity of the works. Should archaeological remains be uncovered during construction then work in that area will cease and advice on appropriate mitigation will be sought from specialist archaeologists that are retained by Black & Veatch.

8. CONCLUSIONS

8.1 The proposed scheme has been reviewed against the requirements of the national and local planning framework. The principle of the development is considered to be acceptable.

8.2 The majority of the scheme is permitted under the Town and Country Planning (General Permitted Development) Order 1995. Only the proposed MCC kiosk and standby generator enclosure requires planning permission. The proposed design of the MCC kiosk and standby generator enclosure reflects that of other structures at the site. On completion it will generally become part of the existing operational development. It represents a small well-considered development that responds positively to relevant planning policy context.
## Environmental check list — Preliminary considerations and remedial actions

**Project name:** Thames Lot B  
**Project component (if applicable):** Byfield STW  
**Project no.:** 168207  
**Component code:** P3026-2

### Has the Client identified any environmental issues?
- **Yes:** [ ]  
- **No:** [X]

**Details or reference:** Install 1 new nitrifying submerged aerated filter (N-SAF) adjacent to existing, two new disk filters and provide new standby generator, within the current site boundary. Also reconfigure humus tanks and upgrade power supply. Site visited 9th July 2010.

Refer to the list of generic environmental aspects in GA330B and the relevant register of environmental legislation (see list in GB110X). Guidance on risk assessment is given in GA330D.

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### Note that this check list is not necessarily exhaustive — it should be expanded as appropriate to the project

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Item ref.</th>
<th>Environmental target, impact or issue</th>
<th>Aspects likely to have statutory implications are marked</th>
<th>Possible effects and opportunities during: Construction</th>
<th>Remedial action(s) identified at construction (C) and/or operation (O)</th>
<th>Person or organisation responsible for action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flora and fauna</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Designated site (such as SPA, Ramsar, N-SAC, SSSI or LNR):</td>
<td>X</td>
<td></td>
<td>No designated sites within 2km.</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>Habitat protected by planning policy (such as SNCI or ancient woods):</td>
<td>X</td>
<td></td>
<td>None within 2km of the site.</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>Protected species of flora or fauna:</td>
<td>X: L H Mod X</td>
<td></td>
<td>There are potential reptile refugia located in the southern section of site, south of Filter 1 (see below).</td>
<td></td>
<td>PM / Env. Scientist</td>
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</table>

**Construction activities have the potential to kill or injure reptiles present on Byfield STW.**

Historic TW records indicate that badgers currently forage if construction commences during March – October, a two stage strimming of potential reptile habitat, supervised by an ecological watching brief will be carried out. This should occur at least one week prior to the start of construction to allow reptiles to disperse. If construction is likely to commence during November – February, any potential reptile habitats located within the construction footprint should be removed in late Sept or early October under the supervision of an ecological watching brief.

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### Coding for magnitude of proposed change:
- **H** - High – over 75% of area or receptor affected
- **M** - Medium – 25% to 75% of area or receptor affected
- **L** - Low – 5% to 25% of area or receptor affected
- **VL** - Very low – some effect but <5% of area or receptor affected
- **NC** - No change – no effect

### Coding for sensitivity of receptor:
- **H** - High – international or national prot’n
- **M** - Medium – regional or local protection
- **L** - Low – no protection

### Significance:
- **H** - High
- **M** - Medium
- **L** - Low
- **VL** - Very low
- **NC** - No change

### Coding for significance:
- **MAJ** - Major
- **MOD** - Moderate
- **MIN** - Minor
- **N** - None or neutral

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## Environmental check list — Preliminary considerations and remedial actions

### Project name:
Thames Lot B

### Project component: (if applicable)
Byfield STW

### Project no.
168207

### Component code:
P3026-2

#### 1.3
- **Protected species of flora or fauna:**
  - Coding: **X L H Mod X**
  - Description:
    - H: High – over 75% of area or receptor affected
    - M: Medium – 25% to 75% of area or receptor affected
    - L: Low – 5% to 25% of area or receptor affected
    - VL: Very low – some effect but <5% of area or receptor affected
    - NC: No change – no effect
  - Details:
    - On site. During this assessment, no badger setts or foraging activity was identified on site.
    - The drain close to site entrance will not support water voles.
    - Any foundations or pits dug for construction purposes should be covered, ramped or fenced off overnight to avoid badgers becoming trapped within them.

#### 1.4
- **Other species of flora or fauna (including pest species):**
  - Coding: **X L L N X**
  - Description:
    - X: Protected species of flora or fauna
    - L: Low – no protection
    - N: No change – no effect
  - Details:
    - Rabbits present on site.
    - Take care when locating construction compounds and storing construction material not to cover exposed burrows.

#### 1.5
- **Protected trees or hedgerows (TPO):**
  - Coding: **X**

#### Landscape and visual amenity

2.1
- **Designated site or feature (such as AONB or conservation area):**
  - Coding: **X**

2.2
- **Local landscape context: visual intrusion, light:**
  - Coding: **X**
  - Details:
    - Closest residential property is 500m to the north west. Site is well screened and not visible from any local properties. The proposed works will not affect the local landscape.

2.3
- **Location of buildings and external plant:**
  - Coding: **X L L N**
  - Details:
    - New structures required on site will all be within the existing operational site boundary.
    - To be addressed in the Design and Access Statement.

#### Land use

3.1
- **Regional land use: agriculture, forestry, industry, housing:**
  - Coding: **X**
  - Details:
    - Site and access track are surrounded by agricultural land on all sides. This land will not be affected by the proposed works.
## Environmental check list — Preliminary considerations and remedial actions

### Project Details
- **Project name:** Thames Lot B
- **Project component:** Byfield STW
- **Project no.:** 168207
- **Component code:** P3026-2

### Detailed Considerations

#### 3.2 Infrastructure: rail, road, water:
- **Coding for magnitude of proposed change:** N/A
- **Effects:** No railway within 2km of site. Closest main road is the A361 (single carriage). There are a number of small drains and watercourses running close to the north site boundary an access track. Local infrastructure will not be affected by the proposed project.

#### 3.3 Effects of or on traffic:
- **Coding for sensitivity of receptor:** X : L : M : Min : X
- **Significance:** Site can be accessed through the village of Byfield. To be addressed in the Design and Access Statement.

#### 4.1 Noise / vibration-sensitive receptors (natural or man-made):
- **Coding for sensitivity of receptor:** X : L : L : N : X
- **Significance:** Construction activity has the potential to generate temporary noise and vibration. There are no natural or human receptors that will be affected by such an increase in noise and vibration.

#### 4.2 Selection of plant and equipment:
- **Coding for sensitivity of receptor:** X
- **Significance:** Preparation and implementation of a Site Environmental Management Plan (SEP).

#### 5.1 Rights of way: footpaths, bridleways:
- **Coding for sensitivity of receptor:** X : VL : L : N : X
- **Significance:** No public rights of way or other footpaths/bridleways are affected by the proposals.

#### 5.2 Recreation areas: open spaces, fisheries, open waters:
- **Coding for sensitivity of receptor:** X
- **Significance:** No Scheduled Monument located within 1km of site.

#### 6.1 Designated site or feature: SM, SMR, AAI:
- **Coding for sensitivity of receptor:** X
- **Significance:** No Scheduled Monument located within 1km of site.

#### 6.2 Listed buildings:
- **Coding for sensitivity of receptor:** X
- **Significance:**

#### 6.3 Conservation area:
- **Coding for sensitivity of receptor:** X
- **Significance:**

#### 6.4 Area of potential archaeological interest:
- **Coding for sensitivity of receptor:** X
- **Significance:**

#### 6.5 Other historic features or constraints:
- **Coding for sensitivity of receptor:** X
- **Significance:**

### Coding for magnitude of proposed change:
- **H** High – over 75% of area or receptor affected
- **M** Medium – 25% to 75% of area or receptor affected
- **L** Low – 5% to 25% of area or receptor affected
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### Coding for sensitivity of receptor:
- **H** High – international or national prot’n
- **M** Medium – regional or local protection
- **L** Low – no protection
- **MAJ** Major
- **MOD** Moderate
- **MIN** Minor
- **NC** None or neutral

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### Environmental check list — Preliminary considerations and remedial actions

#### Project name:
Thames Lot B

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P3026-2

| Water resources | 7.1 Water quality: surface, ground, coastal: | X | X | X | X | X |
| 7.2 Water resources: abstractions, groundwater protection zone: | X | X | X |
| 7.3 Discharge of effluent into watercourse, licence requirements: | X | X | X |
| 7.4 Flood defences and land drainage patterns: | X | X | X | VL | M | N | The STW site is partially in the Environment Agency defined flood zone. However the area of development is not N/A PM |
| 7.5 Water use & alternative sources (such as grey water systems): | X | X | X |

#### Air quality

| 8.1 Emission of smoke, gases, particulates, odour, dust: | X | X | X |
| 8.2 Air Quality Management Zone method: | X | X | X |
| 8.3 Internal air quality of buildings or structures: | X | X | X |
| 8.4 Ventilation method (such as use of natural ventilation): | X | X | X |

#### Soil, geology & geomorphology

| 9.1 Designated site: SSSI, RIGS: | X | X | X |
| 9.2 Contaminated land: historic, current land use | X | L | L | N | X | The route of a former railway line runs close to site. Due to the nature of the STW operations, contaminated ground is likely to be present on site. Further mitigation detailed in the SEP. PM |
| 9.3 Soil/ or ground conditions: subsidence, erosion, siltation, run-off: | X | X | X |
| 9.4 Changes in topography: | X | X | X |

#### Material assets and building

| 10.1 Raw materials: source, selection and use: | X | X | X |
| 10.2 Renewable resources and re-use of materials: | X | X | X |

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<th>Sustainable technologies for power, heating and cooling:</th>
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<th>X</th>
<th>See Project Sustainability Assessment</th>
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### Store completed form in project records.

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<th>(Name): Paul Gibbs</th>
<th>(Signed): P. Gibbs</th>
<th>Date: 27/07/10</th>
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<tr>
<td>Reviewer:</td>
<td>(Name): Angela Khalil / Lara Ball</td>
<td>(Signed): A. Khalil / L. Ball</td>
<td>Date: 28.9.2010 / 06.10.10</td>
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<tr>
<td>Project Manager:</td>
<td>(Name): Anne Dugdale</td>
<td>(Signed): AD</td>
<td>Date: 17.12.2010</td>
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</tbody>
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Planning Application to Install and Operate an MCC Kiosk and Standby Generator Enclosure
part of an upgrade of the Byfield Sewage Treatment Works

Supplementary Ecological Information

August 2011
PLANNING APPLICATION TO INSTALL AND OPERATE AN MCC KIOSK AND STANDBY GENERATOR ENCLOSURE, PART OF AN UPGRADE OF THE BYFIELD SEWAGE TREATMENT WORKS

SUPPLEMENTARY ECOLOGICAL INFORMATION

Introduction
1. Black & Veatch Ltd, on behalf of Thames Water Utilities Ltd, has submitted a planning application to install and operate a small control kiosk and standby generator enclosure at the Byfield Sewage Treatment Works (STW). This forms part of an upgrade of the Byfield STW, which includes other works that are permitted development and therefore not the subject of the planning application.

2. An environmental appraisal carried out by Black & Veatch's in-house team of qualified ecologists and experienced environmental scientists, considered the whole of the STW site and the surrounding area. This document provides supplementary information on that appraisal specifically in relation to amphibians.

Environmental Appraisal
3. The scope of the environmental appraisal included consideration of all protected habitats and species, including amphibians. Amphibians, specifically Great Crested Newts (GCNs), are fully protected by the Wildlife & Countryside Act 1981 (as amended) and the Conservation of Species and Habitats Regulations 2010.

4. Initially, a desk study was carried out that considered the site and its surroundings. In terms of GCNs, water bodies within 500m of the proposed works (as per Natural England guidelines) were identified using GIS and a search for historic records on the National Biodiversity Database (NBN) was made to give an indication of the potential for GCNs to be in the locality. One pond was identified just north of Half Moon Spinney, which is beyond 500m from the site of the proposed kiosk. Also a small depression was identified in the field on the west side of Church Street. This is not shown on OS maps, but does occasionally hold water following intense rainfall (this was confirmed during a subsequent site visit). No GCN records exist on the NBN database for a 2km search radius from site.

5. The desk study was supplemented by a walkover survey of the site. No evidence of GCNs, common toads or other amphibians was identified during this survey.

6. On the basis of this information, and in the context of the small scale and nature of the proposed works, the Senior Ecologist advised that the potential for the works to impact on GCNs is low. The potential for the common toad, a UK BAP Priority Species, was judged as medium since they can be found further from breeding pools, up to 2km, and NBN records suggest they could be within close proximity to the site.

Environmental Management During Construction
7. The construction site team are required to attend site induction and environmental tool box talks. As part of this the potential risk, albeit low, of encountering protected species including GCN and the common toad will be highlighted. This will include an introduction to GCNs and common toads (including key points for identification) and facts & figures associated with them and the legal protection they receive. Construction of the scheme will be managed through the implementation of a Site Environmental Plan. This will set out the identified environmental actions pre-construction, during construction and post construction. An Incident Response Plan
will be displayed on site which will identify what the construction team need to do should they discover protected species (including GCN) on site. This plan will include instructions that in the event that a GCN is encountered, all work must stop in that area until a professional ecologist with a GCN licence visits the site to assess the situation and advised on the appropriate way forward.

8. Black & Veatch's Senior Ecologist has advised that no further survey work or mitigation measures need to be employed unless the scope of works changes.
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