STATEMENT IN SUPPORT
OF
APPLICATION FOR A PRIOR APPROVAL DETERMINATION FOR DEVELOPMENT AT SWAINS LANE TRANSMITTING STATION, BISHAM GARDENS, OFF SWAINS LANE, HIGHGATE, LONDON N6 6PH

April 2016

Arqiva
Farley Lane
Romsley Hill
Romsley
Halesowen
B62 0LG

Site Ref: 141634

EXECUTIVE SUMMARY

The Proposed Development

1. This application is for the installation of electronic communications apparatus that forms part of Arqiva's new smart water metering radio network within Inner London for Thames Water.

The Benefits of the Smart Water Metering radio network

2. Smart water meters are at the centre of Thames Water's overall 25 year plan, which was approved by the Secretary of State for Environment in June 2012. This aligns with the wider Government programme to roll out across Great Britain between 2014 and 2020, a dedicated smart metering network for electricity and gas meters to homes and small businesses.

3. Major benefits of the network will be:

- More efficient operation: with faster leak detection and repair; better fault finding; greater network visibility; enhanced supply/demand planning; and better capital investment/maintenance targeting

- Better customer service: providing customers with clear, detailed information on their water usage and consumption patterns, enabling them to adjust their behaviour to save water, energy and money

- Environmental protection: lower consumption and reduced leakage enable reduced abstraction; this in turn cuts carbon emissions from water treatment and distribution processes

- Improved water resilience: reduced danger of demand outstripping supply

- Platform for more frequent and better quality engagement with Thames Water customers on water efficiency offers, bespoke advice and tools for reducing consumption and bills – both water and energy – benefiting water and fuel poverty agendas.

4. To meet the requirements of the new smart water radio network, Arqiva will need to install electronic communications apparatus at several sites across London. The radio network will be based around long wave radio, which is the same as that deployed by Arqiva in parts of Northern England and Scotland as part of the wider smart metering radio network for gas and electricity companies.

Technical and Operational Constraints

5. The smart water metering radio network for Thames Water, like all electronic communications networks, will need to be supported by an infrastructure of operational sites with the required antennas and other apparatus needed to provide radio coverage to the local area.

6. As the network must be able to communicate with meters that are typically found in a boundary box buried in the ground at a property or in the footpath, then the sites must be in located so that they can provide an acceptable level of coverage to the properties that they serve.

Site Selection

7. It is proposed to install the smart metering equipment at Swains Lane Transmitting Station, a long-established telecommunications site already host to antennas, transmission dishes and other electronic communications apparatus. The proposed siting of the development therefore accords with best practice in terms of the shared use of existing telecommunications sites. The site is located within the Highgate Conservation Area.

Compliance with Planning Policy and other Material Planning Considerations

8. Policy at national level is set out in the NPPF. The NPPF views high quality communications infrastructure and systems, such as the coverage provided by the smart water metering radio network, and protection of the historic environment as essential for achieving sustainable development objectives.

9. The Development Plan comprises the London Plan, Camden Core Strategy 2010-2015, the Camden Development Policies 201-2025, and those saved policies of the Camden Unitary Development Plan that remain in force. None of remaining saved UDP policies or any of the policies in the core strategy and development policies document relate specifically to electronic communications development, although the shared use of this existing telecommunications site is entirely in accordance with section 5 of the NPPF.

10. The proposal and its role in Thames Water's smart metering network will also help to deliver the Council's and the Mayor of London's aspirations to support sustainable development, provide Camden's population with support and infrastructure services, and tackle climate change, as set out in the London Plan and policies CS5 'Managing impact of growth', CS10 'Support community facilities and services' and CS13 'Tackling climate change' of the Core Strategy.

11. With regards to design, layout and scale, this has been guided by the special technical and operational requirements that are associated with electronic communications development. Good practice guidance requires careful consideration of the siting and design to minimise appearance and to ameliorate potential visual impact, objectives achieved by the proposed development in accordance with policy CS14 'Providing high quality places and conserving our heritage' of the Core Strategy. This position applies equally to policies DP24 'securing high quality design' and DP25 'Conserving Camden's heritage' of the Camden Development Plan Policies document.

ICNIRP Compliance

12. The proposed antennas comply with all relevant health and safety requirements, in accordance with ICNIRP guidelines. A certificate of compliance has been provided with this application.

Servicing and Maintenance

13. Periodic access will be required to the site for maintenance and servicing visits. This will use the existing access from Swains Lane and will be restricted to authorised personnel only. Therefore the proposal does not give rise to any issues associated with public access.

14. In conclusion, the proposed development has been sited and designed in order to locate the development as sensitively as practicable. Specific consideration has been given to technical requirements and national and local planning policy. The proposal is supported by both local and national planning policy, and as such it is considered that the application should be looked upon favourably.

1. INTRODUCTION

1.1 This statement is submitted in support of an application for a prior approval determination for the installation of permitted development at Swains Lane Transmitting Station, as part of Arqiva's planned smart water metering communications network for Thames Water. The transmitting station is an unlisted and long-established telecommunications site located within the Highgate Conservation Area.

1.2 Arqiva is an Electronic Communications Code Network Operator and has been appointed by Thames Water to develop the smart water meter infrastructure network within Inner London.

1.3 The development proposed is shown in detail in the drawings submitted. In summary, it involves:

- The installation of a 2.8m long collinear antenna with supporting steel work on the existing 46m high communications tower at a mean height of 25.5m above ground level. This antenna provides the radio coverage for the network

- A wall-mounted GPS antenna and 3G finial attached to the equipment building at a height of 2.5m above ground level. These units assist with the various functions involved in the operation of the base station and, in the case of the 3G finial, provide the backhaul resilience/connectivity to the network in circumstances where it may not be possible to provide this via an underground fibre connection

- An equipment rack within the existing equipment building. For the avoidance of doubt this does not constitute 'development' and hence it does not form part of the prior approval determination for obvious reasons

- Ancillary development such as cables linking the antennas to the apparatus installed within the equipment building.

1.4 In this statement, which incorporates a summary of design and access considerations, we go on to highlight the purposes and benefits of the development proposed, explain the particular need in this case and demonstrate compliance with planning policy. We also provide information on health and safety and related issues by way of further reassurance.

2. THE PURPOSE AND BENEFITS OF THE SMART WATER METER NETWORK

2.1 Thames Water is installing smart water meters, progressively across London to reduce overall water usage and improve leakage detection.

2.2 In an average year London gets less rain than many may think – receiving less than Rome, Istanbul, and Dallas, and only half as much as Sydney. London is designated by the Environment Agency as a 'seriously water stressed area' and has one of the highest levels of per capita water consumption in the UK. This puts huge strain on resources and causes environmental problems for local rivers and wildlife. During very dry periods demand for water in London already exceeds what is available and this shortfall will increase as the population grows and our climate changes.

2.3 This is why rolling out water meters is at the centre of Thames Water's overall 25 year plan, which was approved by the Secretary of State for Environment in June 2012. This initiative has the support of the Mayor of London in his 'Vision for London' statement and from major environmental groups in the Blueprint for Water Coalition. Smart water metering will also help deliver the aspirations set out in Section 10 of the National Planning Policy Framework and help meet the water use and supplies policy framework within The London Plan.

2.4 Thames Water intends to progressively meter all domestic and business premises across their supply area. Within this Thames Water expect to be able to provide almost all businesses and around three quarters of households with individual meters by 2030.

2.5 Thames Water will be the first UK water company to install smart water meters which provide automated collection of data, via telemetry. This technology provides a clear picture of leakage and wastage at customers' properties, and a detailed understanding of water use on the network so Thames Water can more effectively target mains replacement work.

2.6 Smart water meters will also put all customers in control of their water bills, gradually replacing the existing fixed charges based on outdated rateable values. Smart meters will also enable customers to view their consumption online, and we know that Thames Water customers who already have standard water meters tend to have lower bills and use, on average, 12% less water.

2.7 Major benefits of the network will be:

- More efficient operation: with faster leak detection and repair; better fault finding; greater network visibility; enhanced supply/demand planning; and better capital investment/maintenance targeting.

- Better customer service: providing customers with clear, detailed information on their water usage and consumption patterns, enabling them to adjust their behaviour to save water, energy and money.

- Environmental protection: lower consumption and reduced leakage enable reduced abstraction; this in turn cuts carbon emissions from water treatment and distribution processes.

- Improved water resilience: reduced danger of demand outstripping supply.

- Platform for more frequent and better quality engagement with Thames Water customers on water efficiency offers, bespoke advice and tools for reducing consumption and bills – both water and energy – benefiting water and fuel poverty agendas.

2.8 Having regard to the Government's three key dimensions for sustainable development within the NPPF, smart water metering will in particular assist in the following ways:

- **An economic role –** smart water metering communications will help Thames Water to improve network efficiency and resilience and better capital investment/maintenance targeting; reducing the dangers of demand outstripping supply which might stifle business growth; allow businesses to be

water conscious, smarter and invest in more water efficient infrastructure to reduce longer term running costs; consequential spin offs will, among many, be the creation of new green jobs and technologies, modern and water efficient industries and help stimulate retail sales in more efficient appliances that better utilise water.

- **A social role -** modern smart metering communications will allow consumers to benefit from real time information on their water usage and consumption, to help them control everyday use and save money. With greater visibility and understanding of their water consumption, consumers will be able to make more informed choices, such as using eco wash modes on washing appliances, whether to take a bath or shower and whether to water a garden or wash a car.

- **An environmental role –** smart metering communications will help to reduce water consumption at homes and premises and allow smarter working practices such as better water management within larger businesses and incorporation of new efficient infrastructure into new developments. In this way modern smart water metering communications will help ensure the prudent use of water resources, alleviate waste, reduce water abstraction and help the UK Government meet its sustainable economy aspirations.

2.9 However, in order to make this important contribution to sustainable development objectives, the smart water metering radio network has to be developed first and like all electronic communications networks, will need to be supported by an infrastructure of operational sites. This is no different than railway services, for example, being reliant on the associated infrastructure of lines and stations. In the next section, the particular network requirement from which this application stems is explained.

2.10 To meet the requirements of the new smart water radio network, Arqiva will need to install electronic communications apparatus at several sites across London. The radio network will be based around long wave radio, same as that deployed

by Arqiva in parts of Northern England and Scotland as part of the wider smart metering radio network for gas and electricity companies.

3. THE REQUIREMENT

3.1 Arqiva owns and operates the terrestrial radio and television broadcast networks. The company owns most of the tower portfolio originally developed by T-Mobile (now part of Everything Everywhere) and has rights and manage other masts, towers and rooftops, developed or otherwise suitable for use for electronic communications. In total, Arqiva has access to over 16,000 sites around the UK, which is considerably in excess of the numbers available to any other electronic communications operator in the UK. Arqiva is also licensed to use the 412-414MHz spectrum that will be used as part of the smart water metering radio network, the same as that being deployed within Northern England and Scotland as part of the Government's wider smart metering programme for the gas and electricity companies.

3.2. Basing the smart water metering radio network on this portfolio of existing sites will be a critical element in minimising the potential visual impact associated with the deployment of a new network. This is obviously consistent with longstanding statutory and government policy requirements to use existing sites or other high structures so as to minimise visual impact.

3.3 As the network must be able to communicate with meters that are typically found in a boundary box buried in the ground at a property or in the footpath, then the sites must be in located so that they can provide an acceptable level of coverage to the properties that they serve.

3.4 New installations will be required in some areas for a variety of reasons relating to coverage requirements, for example, the nearest existing sites are too far from certain properties; the signal from the nearest site may be adversely attenuated or affected by topography or natural or man-made features such as trees or high buildings; or the ground conditions and construction mean that the signals will be unable to penetrate them. Without some new installations a number of homes and businesses would not therefore be able to benefit from smart water meters.

3.5 In this case coverage and capacity issues exist in the wider vicinity of the application site and hence a new installation is proposed to address this. In addition to providing network coverage to the local area, the proposed base station has to fit in with the overall plan for the network around Arqiva's existing sites or other sites. To help illustrate the context of this application, two radio simulation plots are provided in Annex A to this statement:

- The first plot 'Without N005' shows planned network coverage without the base station at Swains Lane Transmitting Station. The location of planned sites is shown by a symbol and their reference number, e.g. the application site is THW_N005 with adjoining sites identified in similar terms. This includes base station THW-NW103 to the west at Hampstead Telephone Exchange that was granted prior approval by the Council under case reference 2015/4936/P. Coverage from each base station is illustrated by coloured shading

- The second plot shows cumulative network coverage with the proposed base station at Swains Lane Transmitting Station. As can be seen, the proposed base station provides coverage and additional network capacity across Highgate and beyond, particularly to the west and southwest

3.6 It should be noted that these radio simulation plots relate to a planned network that is in its infancy and hence they may tend to exaggerate or underplay true levels of coverage on the ground, largely because the modelling only takes into broad account general topography and man-made features. They are, however, a useful tool for explaining how the new installation will fit into the network in the wider area.

3.7 Our conclusion is that the shared use of this telecommunications site strikes the best balance between environmental and operational considerations, including the key requirement for the development to be close to the properties it is intended to serve. This is the reason for the application before you.

4. COMPLIANCE WITH PLANNING POLICY

4.1 The relevant planning policy framework that has been taken into account and in part already alluded to is found principally within:

- The Development Plan, which comprises the London Plan, Camden Core Strategy 2010-2015, the Camden Development Policies 201-2025, and those saved policies of the Camden Unitary Development Plan remaining in force
- National Planning Policy Framework (NPPF)
- The Highgate Conservation Area Appraisal and Management Strategy, October 2007

4.2 These documents provide the overall policy background for electronic communications development, site specific policies and the key considerations relevant to the siting and design of appropriate electronic communications development.

The National Planning Policy Context

4.3 The general policy context can be summarised as follows:

- Government policy within the NPPF is to support high quality communications infrastructure and systems – this is especially relevant to smart metering, which is a Government initiative
- Government policy is to keep the inevitable environmental impact associated with electronic communications development to a minimum
- The best way to minimise environmental impact is to avoid the unnecessary proliferation of new radio masts and sites
- The starting point for planning new networks or the expansion of existing networks is, therefore, to use existing electronic communications sites

4.4 The NPPF as a whole is aimed at encouraging a more positive approach to town planning. While the NPPF builds environmental protection into the definition of sustainable development, there is also a very clear emphasis that local planning authorities should be looking for ways to help development come forward and not reject applications simply on environmental grounds. The NPPF recognises that this is especially relevant where a development might have other significantly important benefits such as being essential to meet, for example, new important infrastructure such as the smart water metering communications network for Thames Water.

4.5 The importance of the proposed development as part of the smart water metering network is clearly a key material planning consideration as it is precisely the type of new digital infrastructure that the NPPF is seeking to support. Hence, it is important to reflect on some key points within the NPPF which are relevant to the very important development at this site and the general planning principles that should apply when determining the merits of the application:

a. Paragraph 14 advises that authorities should:

- positively seek opportunities to meet the development needs of their area [as part of plan making];

- meet objectively assessed needs unless the adverse effects would *"significantly and demonstrably outweigh the benefits"* ;

b. Paragraph 17 advises that planning should *"proactively drive and support sustainable development to deliver the homes, businesses and industrial units,* ***infrastructure*** *and thriving local places that the country needs"* [my emphasis]*;*

c. Paragraph 187, on "decision-taking" states that authorities should *"look for solutions rather than problems, and decision-takers at every level should seek to approve applications for sustainable development where possible"*.

4.6 Paragraph 14 of the NPPF further states that the presumption in favour of sustainable development lies at the heart of the planning system and, in respect of decision-taking, this means that development proposals that accord with the provisions of the Development Plan should be approved without delay. In respect of this guidance, the following sections of this statement demonstrate that the proposed development accords fully will all relevant Development Plan and NPPF policies and, therefore, prior approval should be granted for the development.

Section 5 - Supporting Advanced Communications Infrastructure of the NPPF

4.7 The proposal is supported by, and accords with, the guidance in Section 5 of the NPPF, which provides further guidance on the Government's objective of providing high quality communications networks in England.

4.8 The NPPF clearly acknowledges the benefits of modern electronic communications and seeks to encourage such development as being essential due to their role in supporting a modern economy, contributing to sustainable objectives, and enhancing local community access to a range of goods and services. Local planning authorities are advised to respond positively to proposals for electronic communications development and this has to include an understanding of the associated special problems and technical needs of developing communications networks such as the smart water metering radio communications network.

Section 7 – Requiring Good Design of the NPPF

4.9 Government places great importance on the design of the built environment and paragraph 56 of the NPPF states that this is an integral objective of achieving sustainable development. The careful approach taken to the design and siting of the proposed development complies fully with this general policy objective.

4.10 More specifically, the proposal is supported by the guidance in paragraph 65 of the NPPF, which states that:

'Local Planning Authorities should not refuse planning permission for buildings or infrastructure which promote high levels of sustainability because of concerns about incompatibility with an existing townscape, if those concerns have been mitigated by good design (unless the concern relates to a designated heritage asset and the impact would cause material harm to the asset or its setting which is not outweighed by the proposal's economic, social and environmental benefits).'

4.11 In respect of this guidance, all reasonable steps have been taken through careful siting and design to minimise the visual impact of the development, and thereby avoid any material harm to the overall character and appearance of the Highgate Conservation Area, in so far as the technical and operation constraints allow. As demonstrated in the following sections of this statement demonstrate, the proposal is an acceptable design solution that will not have any detrimental impact on a designated heritage asset.

Section 10 – Meeting the challenge of climate change, flooding and coastal change

4.12 Government encourages local planning authorities to properly consider the issue of climate change and to support necessary infrastructure central to the economic, social and environmental dimensions of sustainable development. Paragraph 94 encourages local planning authorities to have *"proactive strategies to mitigate and adapt to climate change*" taking full account of matters such as water supply and demand considerations. This will clearly include the necessary smart water metering radio communications infrastructure for Thames Water to tackle water use and demand.

London Plan Considerations

4.13 Policy 5.15 of The London Plan 2013 specifically tackles water consumption and supply and how this might be met in a sustainable manner by, inter alia,

minimising the use of mains water and reducing leakage levels. A significant objective of the policy is to encourage the maintenance and upgrade of water supply infrastructure and the smart water metering network and smart meters will be an essential contributor to this objective.

4.14 The London Plan and the related London View Management Framework Supplementary Planning Guidance, designates and seeks to protect and manage 27 views of London and its major landmarks. The closest of the designated panorama views to the application site are 2.A and 2.B from Parliament Hill towards the City of London, St Paul's Cathedral and the Palace of Westminster. The proposed development will not have any impact on these vistas, as Swains Lane Transmitting Station sits 'behind' and to the northeast of the summit of Parliament Hill.

Heritage Considerations

4.15 Section 12 'Conserving and enhancing the historic environment' of the NPPF, policy CS14 Promoting High Quality Spaces and Conserving Our Heritage of the Core Strategy, and policy DP125 Conserving Camden's Heritage of the Camden Development Policies plan reflect the statutory duty placed on a local planning authority to have regard to the objective preserving or enhancing the overall character and appearance of a conservation area when assessing development proposals.

4.16 In respect of these strands of national and local planning policy, Swains Lane Transmitting Station is a long-established telecommunications site and its 46m high lattice tower is a visually dominant local landmark within the conservation area. The site was originally developed by the BBC in the 1930s to provide broadcast services, although the present lattice tower dates from the 1950s. Today the tower hosts a range of electronic communications apparatus operated by a number of organisations as part of their network services to London, including the BBC and most of the Mobile Network Operators. The site also contains a number of buildings and external equipment cabinets containing other

electronic communications apparatus associated with the operation of the antennas and dishes installed on the tower.

4.17 The Highgate Conservation Area Appraisal and Management Strategy makes various references to the presence of the transmitting station including the statement that *'…The view to the west end of Bisham Gardens is marred by the tall radio mast. Although this tower is a local landmark, it is out of keeping with the Conservation Area by way of its height, scale and detailing…'* (page 13). Pages 29 and 30 of the document also identify the tower and its associated ancillary buildings as features that detract from the character of the area and would benefit from enhancement.

4.18 Notwithstanding these observations, the tower will obviously continue to be a feature of the conservation area for the foreseeable future and the appraisal is silent on suggestions for how the 46m high tower and the necessarily functional and utilitarian apparatus attached to it could be enhanced. Furthermore, balanced against these comments is the core aim of telecommunications planning policy which is to encourage the shared use of existing towers where this is consistent with technical requirements in order to avoid the unnecessary proliferation of masts and telecommunications sites.

4.19 With these potentially conflicting positions in mind, we have sought to minimise the impact of the development both visually and in terms of the impact on the overall character and appearance of the Highgate Conservation Area by the following means:

- Installing the 2.8m long 'whip' like collinear antenna towards the mid-section of the tower rather than at the top of the structure where it will be seen in the context of other apparatus of similar design
- Wall mounting the GPS antenna and 3G finial so that it will be 'lost' against the backdrop of the main equipment building in views from Swains Lane and Bisham Gardens

- Installing the other electronic communications apparatus required to support the collinear antenna within the equipment building rather than in an external equipment cabinet in order to minimise the amount of development within the site.

4.20 In relation to other Heritage Assets, Figure 1 below shows the location of the transmitting station in relation to the closest Listed Buildings, using an annotated extract of the National Heritage List for England map available on Historic England's website. Listed Buildings are highlighted by the blue triangle symbol.

Figure 1 Listed Buildings and Registered Parks and Gardens

4.21 The Heritage Assets shown on Figure 1 include:

- The Grade I Listed Highgate Cemetery (list entry 1000810), which also includes a number of other Listed Buildings
- The Grade II* Listed Waterlow Park (list entry 1000849)
- Institution Cottage, Swains Lane, Grade II (list entry 1378954), approximately 35m to the north of the transmitting station
- Highgate Literary and Scientific Institute and attached railings and gate, no.11 South Grove, Grade II (list entry 1378752) approximately 40m to the north
- Highgate United Reform Church, South Grove, Grade II (list entry 1378769), approximately 40m to the northwest
- Various other Listed Buildings fronting South Grove, including the Grade II* Listed Church House and the Highgate Society (list entry 1378748)

4.22 While the proposal will result in a minor addition the quantum of apparatus attached to the tower, we consider that this would have a negligible impact on the setting of these Heritage Assets. All reasonable steps have therefore been taken to minimise the visual impact of the proposal, having regard to the technical and operational factors affecting the development and its role within the smart water metering network. As the visual impact of the development is acceptable and there is no better available alternative, the proposal meets the requirement to preserve the overall character and appearance of the Highgate Conservation Area, entirely in accordance with section 12 'Conserving and enhancing the historic environment' of the NPPF and the heritage protection policies of the Development Plan.

4.23 Even if some limited harm to the overall character and appearance of the conservation area is perceived, then the guidance at paragraph 134 of the NPPF applies. This advises that the less than substantial harm caused to a heritage asset should be weighed against the public benefits of the proposed development, which in this case is the smart water metering radio network and the extent to which it meets other planning policy objectives for the shared use of existing telecommunications sites. Paragraph 138 of the Framework further

advises that not all elements of a conservation area will necessarily apply to its significance, a position that applies to the application site given the long-standing presence of the Swains Lane Transmitting Station and its 46m high mast that is already host to similar forms of electronic communications apparatus.

4.24 In summary, the sensitive way the development proposed has been brought forward accords with best practice and forms part of a national important infrastructure project to provide smart water metering services to the local area. It accords with the key policy objectives at national level, which are reflected in the relevant policies at local level. The development proposed is, therefore, acceptable in principle and also accords with the more detailed guidance expressed in local policy.

5. DESIGN AND ACCESS CONSIDERATIONS

5.1 The development proposed is exempt from the requirement to provide a design and access statement under Article 9 of The Town and Country Planning (Development Management Procedure) (England) Order 2015. However, to assist your determination this section provides a description of the process adopted in the design of the proposals and explains the access considerations. The significant contribution such development makes towards sustainable development objectives has already been outlined earlier.

Physical Context

5.2 Swains Lane Transmitting Station is an unlisted and long-established broadcast and telecommunications site located within the Highgate Conservation Area. The transmitting station comprises a 46m high lattice tower with attached antennas and transmission dishes with associated equipment buildings and cabinets at ground level. The transmitting station occupies its own compound at the corner of Swains Lane and Bisham Gardens at an elevated location to the north of Waterlow Park and Highgate Cemetery and to the south of Highgate Village Centre.

5.3 The tower is a visually dominant presence and established local landmark in a townscape otherwise characterised by:

- The open spaces of Highgate Cemetery and Waterlow Park to the south
- Domestic scale 2 and 3 storey terraced and semi-detached houses at Bisham Gardens and the northern end of Swains Lane
- Buildings in commercial and retail use at South Grove and along Highgate High Street to the north and east

Amount, Design, Layout and Scale of the Development

5.4 The amount, layout and design of the development has been guided by the special technical and operational factors affecting the need to provide an acceptable level of coverage to the local area, having regard to the need to minimise visual impact, which have been explained in the preceding sections of this statement .

5.5 For example, the numbers of antennas and their size is the minimum amount of development required to provide the required level of coverage for the smart water metering communications network. The proposed siting of the equipment also takes account of technical and other considerations, including the following

- The collinear antenna has to be installed at a specific location and height to meet the coverage requirements
- The antennas have to be installed to ensure compliance with ICNIRP guidelines. These guidelines provide protection to the general public and for occupational purposes
- The collinear antenna has to be positioned to avoid radio interference with the antennas and dishes already installed on the mast. This is reflected in the degree of horizontal and vertical separation between the collinear antenna and existing apparatus
- All apparatus has to be maintainable in accordance with general health and safety requirements including the CDM regulations.
- All apparatus has to be installed in a structurally feasible manner.
- All apparatus has to be installed in accordance with any relevant landowner requirements.

5.6 Having regard to the above, the installation of a collinear antenna on the mast, and the wall-mounted GPS antenna and 3G finial, strikes the best balance between environmental and operational considerations.

Access Considerations

5.7 Access to the site will use the existing entrance to the transmitting station from Swains Lane and this does not require any amendment as part of the development proposed. Once constructed, the development will be unmanned requiring only periodic visits, typically once every two to three months for routine maintenance and servicing.

5.8 In accordance with all relevant health and safety legislation and guidelines, access to the site will be restricted to authorised personnel and the routine maintenance and servicing of the apparatus will only be carried out by properly trained and qualified staff. Electronic communications base stations are specifically designed to prevent unauthorised access by members of the public and, therefore, there is no requirement to incorporate inclusive access arrangements into the proposed layout and design of the development.

Landscaping

5.9 The collinear antenna will be attached to the 46m high mast at a mean height of 25.5m above ground level with the GPS antenna and 3G finial mounted to the wall of the main equipment building. A scheme of landscaping is, therefore, considered unnecessary in this case.

Appearance

5.10 The sensitive approach to siting and design should minimise the appearance of the development proposed. Insofar as the antennas and other apparatus may be visible they should look straight forward in appearance and reflect their function. To that extent they should in time become accepted features of the local

environment as with the existing apparatus of similar size and design already attached to the tower.

6. ICNIRP COMPLIANCE

6.1 A certificate confirming compliance with the relevant ICNIRP guidelines on public exposure has been supplied with this application. Accordingly, as explained within the NPPF, it is not necessary to consider further the health aspects and concerns about them, which include the perception of risk.

7. A CONSULTATIVE APPROACH

7.1 The NPPF requires a consultative approach to electronic communications development to reflect the sensitivities of any given site. In this case, we decided against entering into formal pre-application consultation with the Council's Planning Department given that the proposal accords with national planning policies for the shared use of existing telecommunications sites and in the knowledge that the relevant Development Plan policies and the Highgate Conservation Area Appraisal were readily available through the Council's website.

7.2 The proposal was rated green when assessed against the Traffic Light Rating explained in the Code of Best Practice on Mobile Network Development, which is used by Arqiva to assess all types of electronic communications project not just those provided on behalf of the Mobile Network Operators. While this rating did not require any specific pre-application consultation we have, as matter of courtesy, informed the occupier of no.23 Bisham Gardens of the proposal and the submission of this application.

8. SUMMARY AND CONCLUSIONS

8.1 The proposed development forms part of Arqiva's planned smart water metering communications network for Thames Water.

8.2 Smart water meters are at the centre of Thames Water's overall 25 year plan, which was approved by the Secretary of State for Environment in June 2012. This aligns with the wider Government programme to roll out across Great Britain between 2014 and 2020, a dedicated smart metering network for electricity and gas meters to homes and small businesses.

8.3 The smart water metering network is very important. The information provided by smart meters will allow Thames Water to properly understand water consumption and have greater network visibility, in turn allowing better network and resilience planning to ensure that demand does not outstrip supply. For consumers, smart water meters will allow users to better manage and reduce water consumption and potentially save money. Smart water meters will play an important role in the government's policies to achieve a transition to a sustainable economy and society.

8.4 The proposal accords fully with planning policy objectives for the installation of electronic communications apparatus on existing communications masts, and the proposed siting and design has been chosen to minimise visual impact and avoid harm to the overall character and appearance of the Highgate Conservation Area. The design and appearance of the development should, therefore, be acceptable.

8.5 The proposed antennas will comply with all relevant health and safety requirements and will be compliant with the ICNIRP guidelines. There are no exceptional circumstances in this case and, therefore, no need to consider health effects and related concerns such as the perception of risk further.

8.6 This statement has demonstrated that the proposal is in accordance with local Development Plan policy and national policy set out in the NPPF. In particular, it

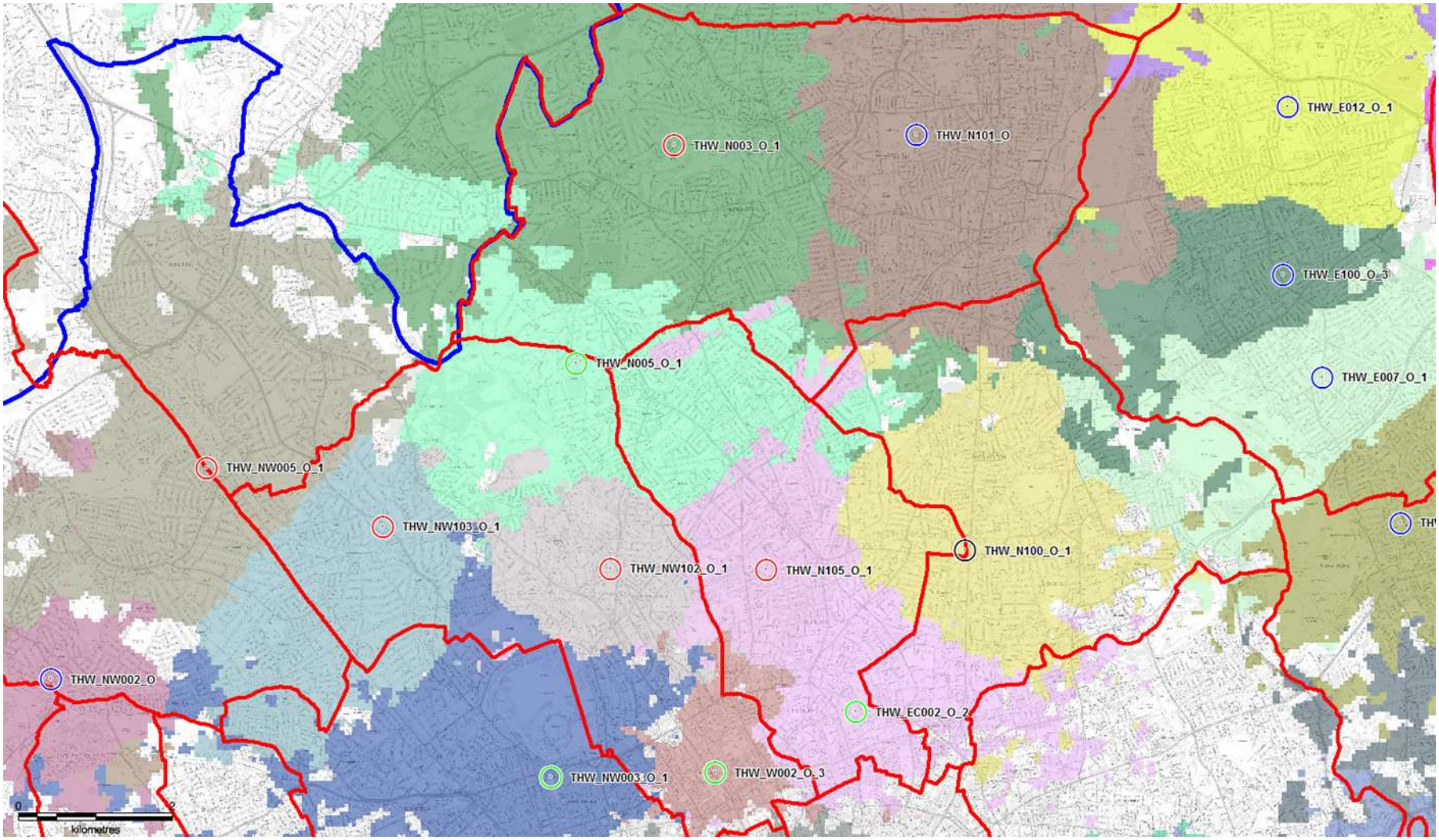
is a form of development that is specifically encouraged as a matter of principle and in its detail complies with the policy objective of minimising potential environmental impact.

8.7 In conclusion, the application merits support and there are no material considerations that indicate otherwise.

Annexe A

Radio Simulation Plots

With N005


THW_N003_O_1
THW_N101_O
THW_E012_O_1
THW_E100_O_3
THW_N005_O_1
THW_E007_O_1
THW_NW005_O_1
THW_NW103_O_1
THW_N100_O_1
THW_NW102_O_1
THW_N105_O_1
THW_NW002_O
THW_EC002_O_2
THW_NW003_O_1
THW_W002_O_3
0
2
kilometres

Without N005