

# **Adopted Surface Water and Foul Drainage**

Supplementary Planning Document



**20<sup>th</sup> September 2016**

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This is a consultation on the Surface Water and Drainage Supplementary Planning Document (SPD)

### How do I respond to this consultation document?

**1.1** The formal consultation will run for a six week period starting on 10 March 2016. The deadline for responses is 5pm on 21 April 2016.

**1.2** Where possible we prefer comments to be made electronically via the consultation portal - <http://chichester-consult.limehouse.co.uk/portal/>, as this is the quickest and easiest way of responding. Alternatively, please send your response to us in the following ways:

Email: [planningpolicy@chichester.gov.uk](mailto:planningpolicy@chichester.gov.uk)

Post : Planning Policy, Chichester District Council, East Pallant House, Chichester, West Sussex PO9 1TY

### What happens next?

**1.3** Once this consultation period has ended, the Council will consider all representations received and the proposed adoption Surface Water and Drainage document. It is anticipated that the Surface Water and Drainage SPD is adopted in September 2016.

### Any further Queries

**1.4** If you have any further queries regarding any of the issues raised in this document, please contact the Planning Policy Team on 01243 785166 or email [planningpolicy@chichester.gov.uk](mailto:planningpolicy@chichester.gov.uk)

### Data Protection

**1.5** All documents will be held at Chichester District Council, and representations will be published online. They will be handled in accordance with Data Protection Act 1998 and kept for three years following adoption of the Surface Water and Drainage SPD. Personal contact details will be removed from copies of representations published electronically. Please be aware that representations made about this document (including your name and address) cannot be treated as confidential.

## 2 . Overview

### Relationship with other Planning Documents

**2.1** This Surface Water and **Foul** Drainage Supplementary Planning Document (SPD) applies to the geographic area covered by the adopted Chichester Local Plan: Key Policies 2014-2029 (CLP). It excludes the part of the district covered by the South Downs National Park because the South Downs National Park Authority is the planning authority for the National Park area.

**2.2** The SPD will provides further explanation as to how policies within the adopted Chichester Local Plan: Key Policies 2014-2029 will be applied. The specific policies are:

- Policy 9 – Development and Infrastructure Provision;
- Policy 12 – Water Management in the Apuldram Wastewater Treatment Works;
- Policy 33 – New Residential Development;
- Policy 40 – Sustainable Design and Construction;
- Policy 42 – Flood Risk **and Water** Management; and
- Policy 52 – Green Infrastructure

### Purpose of the Surface Water and Foul Drainage SPD

**2.3** The Surface Water and **Foul** Drainage SPD expands on the objectives and policies of the CLP. The Plan recognises that to deliver the growth sustainably and in a timely manner, the proper management of water and an understanding of whether existing infrastructure can cope with an increased demand are important.

**2.4** This SPD combines and formalises the approach in the two background documents produced as evidence for the CLP. These are the Wastewater Position Statement January 2014 and the Update to Apuldram Wastewater Treatment Works July 2014. The Table(s) setting out the estimated remaining headroom are updated on a regular basis to take account of planning permissions granted and are essential to the application of this SPD. They can be accessed through the following link - <http://www.chichester.gov.uk/studies#infrastructure>

**2.5** This SPD will provides further clarification on how these matters should be addressed across the Plan area, recognising some specific geographic issues.

### How should it be used?

**2.6** This SPD will be **is** a material consideration when assessing planning applications or appeals **for any net new dwelling(s)** and will be reviewed and updated periodically as necessary. The information contained within the SPD will also provide useful advice to developers and consultants when preparing planning applications to ensure that their development fully considers the water environment and how it should be managed.

### Any further Queries

**2.7** If you have any further queries regarding any of the issues raised in this document, please contact the Planning Policy Team on 01243 785166 or email [planningpolicy@chichester.gov.uk](mailto:planningpolicy@chichester.gov.uk)



### Data Protection

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## 3 . Background

**3.1** The water environment in Chichester District is very special. To the south are the internationally important and protected Chichester and Pagham Harbours **and Medmerry Managed Realignment**. These are fed by a number of smaller streams **watercourses** emerging from the South Downs **and Manhood Peninsula**. Many of these streams **watercourses** are supported by the surrounding groundwater which also help to support a range of wildlife and habitats, along with providing a public water supply for the area.

**3.2** To the north of the District the area is drained by tributaries of the River Arun.

**3.3** Both Pagham and Chichester Harbour are subject to international nature conservation designations, including protected shellfish waters, which require statutory environmental water quality standards to be met. Furthermore the European Water Framework Directive requires that all water bodies must seek to meet good ecological status and that any actions must not result in deterioration from their current status. The condition of the water environment is not currently good enough to meet the required standards with pressures coming from a range of places, including, point source pollution from sewage wastewater treatment works and diffuse pollution from rural and urban areas. One of the aims of the SPD is to ensure that the quality of the water environment does not deteriorate further as a result of new development.

**3.4** The south of the plan area is particularly flat and low-lying, being part of the coastal plain, and has suffered from significant flooding events. Whilst there is a risk of river and coastal flooding, a number of areas have suffered from surface water and foul water flooding due to ~~a lack of capacity and~~ infiltration into the sewer network **during periods of heavy rain**.

**3.5** Whilst this regular flooding can be caused by poor maintenance of ditches and culverts, discontinuity of the ditch network, or collapses/blockages in piped ditches or drainage, it is important to ensure that new development does not exacerbate existing problems and increase the risk of flooding. Therefore particular attention will be given to the proposals for foul and surface water drainage and the capacity within existing networks to accommodate any increase in flow.

**3.6** New **built** development can affect the water environment in various ways – these could be negative through resulting deterioration in water quality but also can offer the opportunity to enhance the quality of the environment. The following sections will set out how development within the Chichester Local Plan area should be managed to achieve both the protection and enhancement of the water environment.

## 4 . Wastewater Treatment Infrastructure

**4.1** This SPD covers areas served by the following wastewater treatment catchments: Apuldram (Chichester), Bosham, Thornham, Sidlesham, Pagham, Tangmere, Kirdford, Loxwood and Wisborough Green.

**4.2** One aspect of all relevant development that needs to be considered is whether there is sufficient infrastructure available to convey, manage, treat and discharge the wastewater that will be produced. Most settlements are connected to the main **public** foul sewer network, and in these locations development will be expected to connect to that network because it is the most sustainable solution.

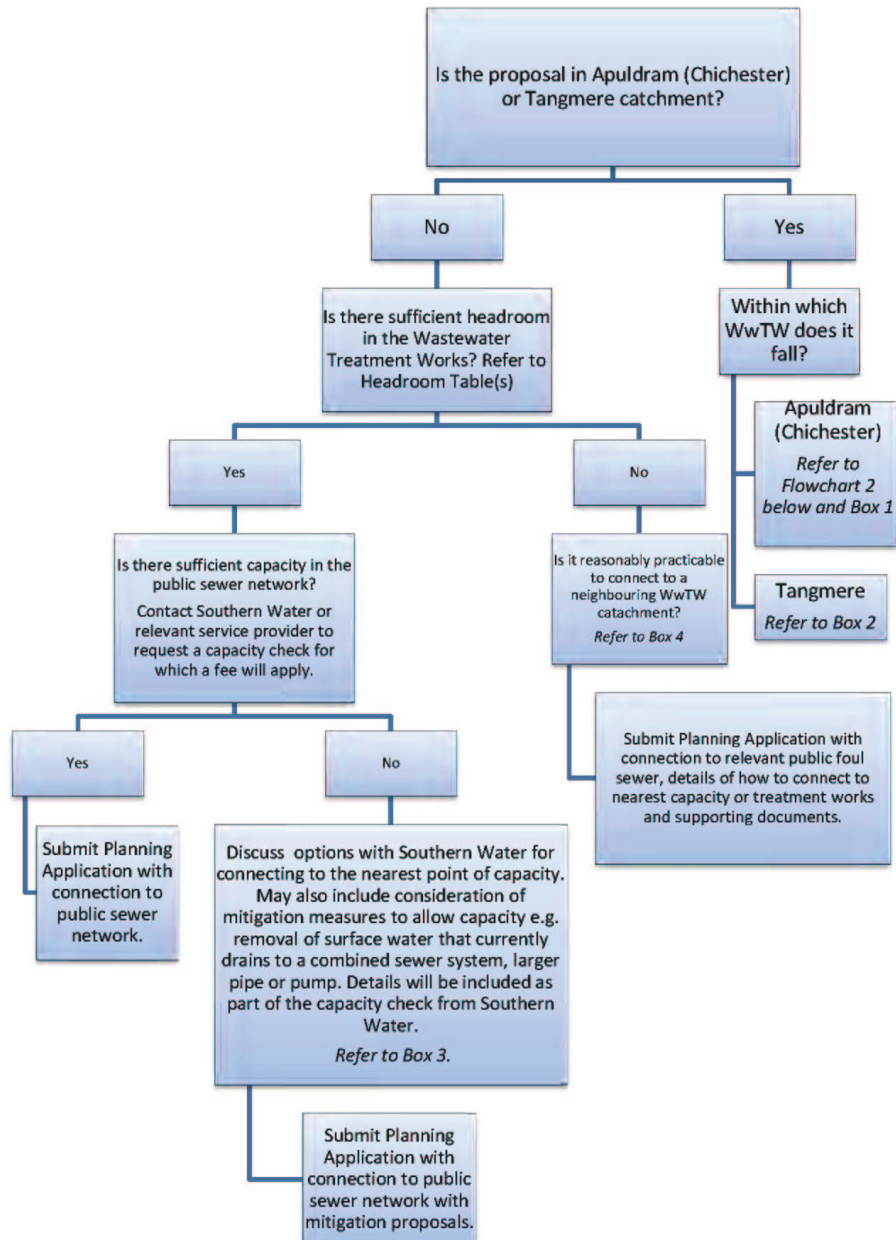
**4.3** However, there are parts of the Plan area where the wastewater infrastructure is constrained due to a range of environmental factors, or where further treatment infrastructure is required to be installed prior to capacity becoming available. When developing a site in these areas specific criteria may need to be considered.

**4.4** The Local Plan provides direction for the strategic development locations with regard to foul drainage, however, in order to support smaller scale development, the following flowcharts and supporting text will guide developers, consultants and decisions makers and help them ensure that the necessary infrastructure can be provided.

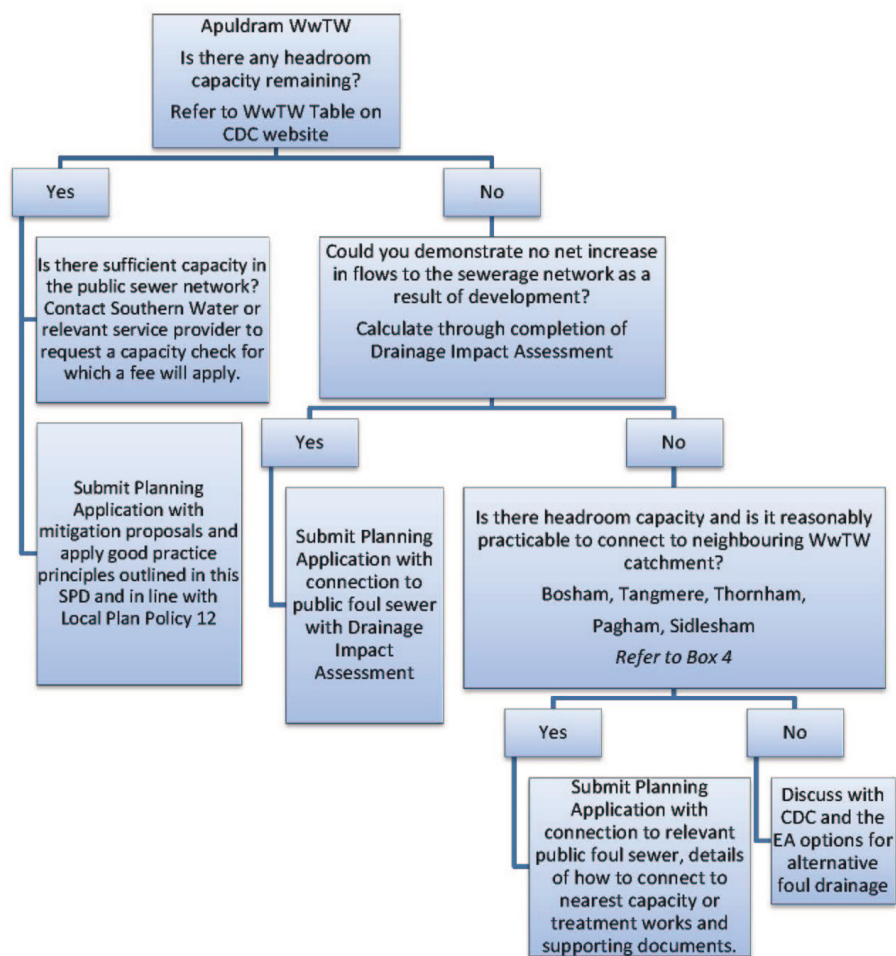
**4.5** This SPD is designed to guide developers through most scenarios. If you find that your situation does not fit with this please contact a planning officer in the first instance.

## 5 . Flow Charts

Flowchart 1 - All Catchments



**Flowchart 2: For developments in Apuldram WwTW catchment**



## 5 . Flow Charts

### *Supporting text for Flowcharts*

#### **How do I know which Wastewater Treatment Catchment I am in?**

**5.1** Appendix 1 provides a catchment map for the Plan area. If you are in doubt over which Wastewater Treatment Works (WwTW) catchment is closest to your site please contact Southern Water to confirm.

#### **How do I know whether there is a capacity issue at the WwTW?**

**5.2** The Council is monitoring the available headroom at the individual WwTW in the Local Plan area, taking advice from the Environment Agency and Southern Water.

**5.3** Reference should be made to the [Table\(s\)](#) which set out the estimated remaining headroom.

**5.4** To ensure the delivery of the CLP and the numbers that it allocates to Parishes, the Council has committed headroom available at Apuldrum (Chichester) WwTW as follows:

- development at Fishbourne Parish (50);
- development at Chichester City North (approximately 130); and
- Chichester City allocation (235).

**5.5** ~~With an average windfall delivery rate of approximately 100 dwellings per year~~ **There is an expectation of additional windfall** in Chichester City, allowing development on greenfield sites to connect to Apuldrum (Chichester) would erode the remaining headroom and prevent development from occurring on brownfield sites within existing settlements. Therefore, it is considered appropriate to refuse planning permission on greenfield sites, if **the proposal** ~~intended~~ to utilise the treatment facilities at Apuldrum (Chichester), in favour of retaining the existing headroom for brownfield development.

### Box 1

#### ***Apuldram (Chichester) WwTW catchment***

The Apuldram (Chichester) WwTW serves the Chichester city area and neighbouring parishes of Apuldram, Donnington and Fishbourne. The WwTW discharges treated effluent in to Chichester Harbour. There are two issues that affect the WwTW. These are:

##### *i. Environmental Permit*

Due to the sensitive nature of the Harbour the current environmental permit limit at the WwTW has stringent limits. The discharge is already treated to exceptionally tight nitrogen levels, established under the Habitats Review of Consents process, and any further tightening of the standard would probably require further investment at the site.

##### *ii. Infiltration*

The Chichester catchment is affected by high levels of groundwater infiltration into the sewer network. When groundwater levels are high, water leaks in to the sewer system and causes the operation of the storm tank overflow. The purpose of the sewerage system and the treatment works is to convey and treat foul and combined flows, not groundwater flows that should be dealt with by land drainage. The flows into the WwTW are therefore greater than its hydraulic capacity leading to prolonged use of the storm tank overflow when partially treated sewage, diluted by groundwater flows, are discharged into Chichester Harbour.

Following the installation of UV treatment on the storm overflow in 2014 some headroom capacity has been made available. However, it is recognised by the Environment Agency and Natural England that under current catchment conditions, any further connections beyond this headroom would have a significant impact on the nitrogen loads and weed growth in the Harbour.

For small scale development within the Apuldram (Chichester) WwTW catchment there are a number of steps to take as detailed in the two flowcharts.

### **How to demonstrate no net increase in flows to the WwTW**

**6.1** For greenfield development sites it is unlikely that it will be possible to be able to demonstrate no net increase in flows.

**6.2** For brownfield sites it may be possible to offset the existing use against future use. It is recommended that planning applications are supported by a Drainage Impact Assessment which considers both the existing drainage arrangements and proposed uses for the site. Appendix 2 provides a template and more details.

## 6 . Apuldram WwTW

**6.3** Policy 12 sets out the minimum criteria that should be adopted for development within the Apuldram (Chichester) WwTW catchment. However, there may be further opportunities for additional mitigation measures, such as retrofitting water efficiency devices into existing development.

### **Case Study: The Heritage, Winden Avenue, Chichester (CC/10/02034/FUL)**

*The development site at The Heritage covers approximately 2.4 acres and consists of a mixture of 1970s general housing and sheltered residential accommodation for the elderly. It was proposed that the existing dwellings would be replaced with new mixed tenure dwellings around a small public square.*

*There is an existing piped drainage network that currently serves the existing buildings on the site which in turn outfalls into a public foul sewer located at "The Hornet".*

*It was proposed that foul drainage from the site would be restricted to the existing rates of discharge subject to the approval of Southern Water. Post development all surface water would be directed to adequate soakaway or infiltration drainage systems with only foul flows being discharged into the foul public sewer.*

*Whilst the foul discharge calculations showed a slight increase in foul flows this is easily mitigated by removing any surface water connections and the implementation of high water efficiency standards.*

*A planning condition was included on the permission to ensure that the development was designed to meet level 3 of the Code for Sustainable Homes (CSH) for water.*



### Box 2

#### Tangmere

The current remaining headroom at Tangmere WwTW has been committed through recent planning permissions. An investment scheme has been included in Southern Water's Business Plan to provide additional wastewater treatment capacity. This is based on the level of development set out in the Local Plan (3,000 new homes). The tighter permit limits and upgrade to the treatment works proposed by Southern Water will ensure that there is no deterioration in water quality status under the Water Framework Directive. Southern Water has also confirmed that it is technically feasible to provide wastewater treatment capacity for further future development.

Until the upgrade **investment scheme** is complete additional development within the catchment will need to consider how waste water will be treated. **Southern Water's Business Plan (2015-2020) includes an investment scheme to provide additional wastewater treatment capacity to deliver the development set out in the adopted Chichester Local Plan: Key Policies 2014-2029.**

**The tighter permit limits and upgrade to the treatment works will ensure that there is no deterioration in water quality status under the Water Framework Directive. Southern Water has also confirmed that it is technically feasible to provide wastewater treatment capacity for further future development.**

**For more information about the estimated remaining headroom please refer to the Headroom Tables for Apuldram and Other WwTW in the Local Plan Area available to view on the Council's website ([www.chichester.gov.uk/policyguidance](http://www.chichester.gov.uk/policyguidance))**

## 8 . Box 3 - no capacity in the public foul sewer network

### Box 3

#### ***What to do when there is no capacity in the public sewer network?***

Even if existing capacity is insufficient, this may not be a constraint to development as it may be possible for additional capacity to be provided. Options should be discussed with Southern Water. The principle is that the development should connect to the local sewerage system at the nearest point where capacity exists. This may require off-site infrastructure.

Developers will need to obtain accurate specifications from Southern Water to provide additional capacity in the network **through undertaking a capacity check**. These details will need to be provided as part of the planning application **and may include an increase in diameter for a length of pipe or an increase in the size of a pump at an on route pumping station**. The provision of the additional capacity proposed will be secured by a planning condition which will require implementation prior to first occupation ~~or, for larger sites, agreed phasing~~.

In addition to more formal improvements to the sewerage infrastructure, the inclusion of relevant mitigation measures in a planning application may also overcome constraints to capacity. These could include the removal of surface water that currently drains to a combined sewerage system or is misconnected to the foul sewerage system.

We would also recommend that consideration is given any recommendations in published Surface Water Management Plans in the area. Please contact West Sussex County Council as the Lead Local Flood Authority to discuss any opportunities.

**Contact details can be found in Section 18.**

## 9 . Box 4 - connection to a neighbouring public foul sewer network

### Box 4

#### *Is it reasonable to connect to a neighbouring public foul sewer network?*

The distance at which it is reasonable for a development to connect to the **neighbouring** public foul sewer will vary from site to site. The topography of the area, the size of the development, and other factors that affect how easy it will be for that development to connect to the **neighbouring** public **foul** sewer **network**, will all have a bearing on whether it is reasonable for a particular development to connect to the **neighbouring** public **foul** sewer **network**.

In general the following approach gives an initial ball park figure for the purposes of considering whether a connection to a **neighbouring** public **foul**-sewer **network** may be reasonable:

“if the distance from the site to the **neighbouring** public **foul** sewer **network** is less than the number of properties x 30 metres then it is likely that it would be reasonable for that development to connect to a **neighbouring** public **foul** sewer **network**”. This figure has been calculated by the Environment Agency following a number of environmental permitting decisions.

## 10 . Other Catchments

### ***Bosham and Thornham***

**10.1** The Bosham and Thornham WwTW discharge treated effluent into Chichester Harbour. Both of these works had their treatment processes updated in 2015. There are no environmental constraints in using the remaining headroom in the existing permit. This headroom is sufficient to meet the level of development set out in the adopted Local Plan **and headroom Tables**. However, development above this level could require further tightening of the standards and further investment at the sites due to the environmental sensitivity of the receiving waters.

**10.2** If you are proposing development in these catchments please check with Southern Water that capacity is available within the **public foul** sewer network.

### ***Sidlesham and Pagham***

**10.3** If you are proposing development in these catchments please check with Southern Water that capacity is available within the **public foul** sewer network.

### ***Lavant***

**10.4** The catchment for the Lavant WwTW does not fall within the Local Plan area and it is not expected that development would connect there.

### ***North of the Local Plan Area (Kirdford, Loxwood and Wisborough Green)***

**10.5** If you are proposing development in these catchments please check with Southern Water that capacity is available within the **public foul** sewer network.

**10.6** Contact details can be found in Section 18.

## 11 . Non public foul sewer drainage

**11.1** Proposals for development should be able to demonstrate no adverse impact on the water environment. Government guidance contained within the National Planning Practice Guidance (Water supply, wastewater and water quality – considerations for planning applications, paragraph 020) sets out a hierarchy of drainage options that must be considered and discounted in the following order:

Connection to the public sewer

Package sewage treatment plant (adopted in due course by the sewerage company or owned and operated under a new appointment or variation)

Septic Tank

**11.2** Foul drainage from new developments should be connected to the public **foul** sewer and developers are advised to follow the flowcharts in order to achieve this. Where all other options have been exhausted and connection to the public **foul** sewer is not possible alternative non-mains **public foul sewer** drainage solutions may be considered.

**11.3** Please note that the discharge of treated sewage effluent to either surface water or groundwater will either need to be registered as an exempt discharge activity or require a Permit from the Environment Agency under the Environment Permitting Regulations, 2010. A detailed assessment of information provided for the treatment for foul drainage will be undertaken as part of the permitting process.

**11.4** This will include a thorough assessment of the justification for non-mains **public foul sewer** drainage. The environmental acceptability of the discharge on the receiving waters will also be fully determined as part of the permitting process. An application for an Environmental Permit will be determined in accordance with Defra guidance and there are therefore no guarantees a Permit will be granted. A Permit will be refused if the environmental impacts are unacceptable.

**11.5** We would advise that the applicant should begin pre-permitting discussions or submit an application for a permit at the earliest opportunity with the Environment Agency.

**11.6** Applications for non public foul sewer drainage need to comply with the binding rules by maintaining septic tanks and sewage treatment plants properly, and in perpetuity, and by ensuring they do not cause pollution. Further information can be found in Section 17.

## 12 . Surface Water Drainage

**12.1** Built development can lead to increased surface water run-off; therefore new development is encouraged to incorporate mitigation techniques in its design, such as permeable surfaces and surface water drainage schemes. **In order to attenuate the rate and volume of surface water run-off and improve water quality, all new development should identify opportunities to incorporate Sustainable Drainage Systems (SuDS) that are appropriate to the size and characteristics of the development at an early stage of the design process, taking consideration of natural site drainage and topography.**

**12.2** Any proposed surface water drainage scheme must consider the use of sustainable drainage principles:

**Figure 12.1 The Four Pillars of SuDS Design (CIRIA SuDS Manual 2015)**

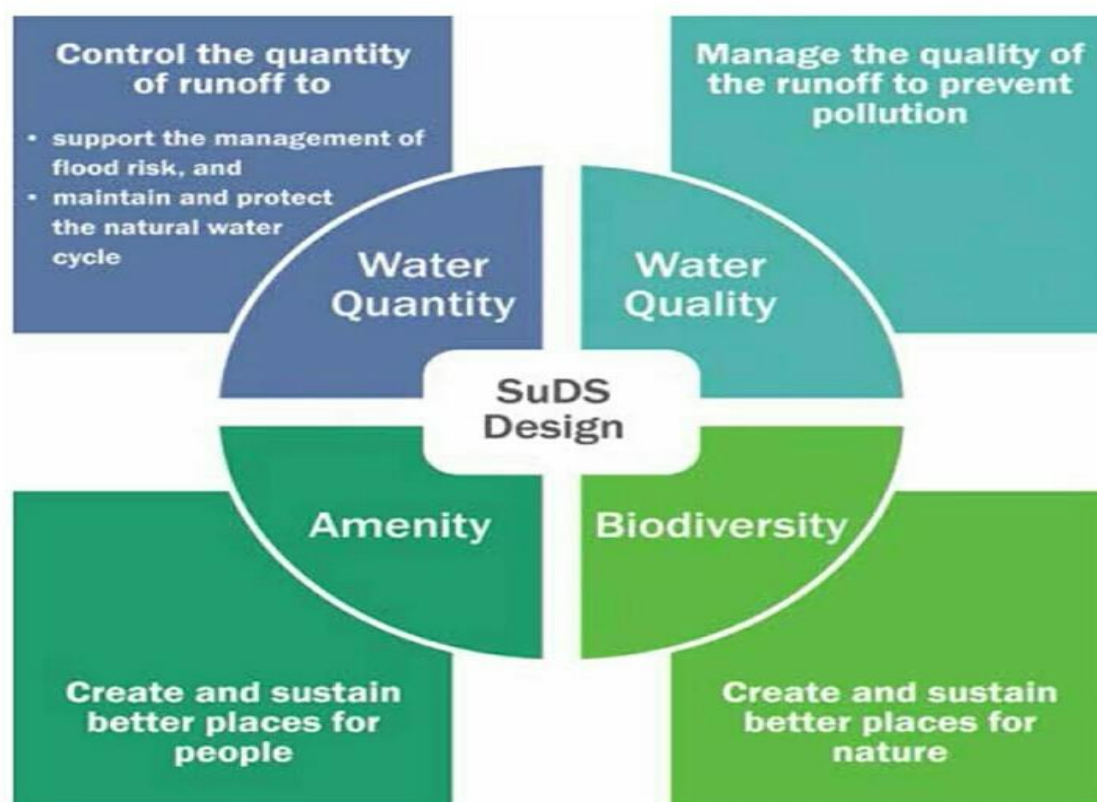


Figure 2.1 The four pillars of SuDS design

**12.3** The design should follow the hierarchy of preference for different types of surface water drainage systems as set out in Approved Document H of the Building Regulations and the Sustainable Drainage System (SuDS) Manual produced by CIRIA (Construction Industry Research and Information Association). This means that the developer must first consider the discharge of surface water into an infiltration device (eg. soakaway, basin, swale, permeable paving etc.). **Consideration of the suitability of these features should include demonstrating that infiltration will not pose a risk to groundwater quality.** If this is not achievable then attenuated flows into a watercourse at an agreed run off rate would be

## 12 . Surface Water Drainage

considered. If no suitable watercourse is available, then attenuated flows into a surface water sewer at an agreed rate is the third option. Surface water must not in any development, be discharged into the foul sewer system.

**12.4** Infiltration rates for soakage structures are to be based on percolation tests undertaken in the winter period and at the location and depth of the proposed structures. The percolation tests and design must be carried out in accordance with BRE 365, CIRIA R156 or a similar approved method and cater for the 1 in 10 year storm between the invert of the entry pipe to the soakaway, and the base of the structure. It must also have provision to ensure that there is capacity in the system to contain below ground level the 1 in 100 year event plus 30% on stored volumes, as an allowance for climate change. **Soakaways should drain half their volume within 24 hours for subsequent storm events.** Adequate freeboard must be provided between the base of the soakaway structure and the highest recorded annual groundwater level identified in that location.

**12.5** Any SuDS or soakaway design must include adequate groundwater monitoring data to determine the highest winter groundwater **table level** in support of the design.

**12.6** Residential developments in excess of five properties will require ground water monitoring to be carried out between October and March inclusive, prior to **application construction**. The extent of monitoring required for **employment, horticulture and smaller residential** developments will be subject to agreement with the Council's Engineers.

**12.7** Discharge to a watercourse or surface water sewer must be restricted to an agreed rate by means of a controlled outflow. Report number 124 from the Institute of Hydrology (see link to Centre for Ecology and Hydrology at Appendix 4), or similar documents, enable greenfield runoff rates to be calculated, and will be used to estimate the correct flow for the development area. Any storage designs must be submitted with groundwater monitoring data where applicable. Storage areas are preferred to be in an 'open' form i.e. ponds, etc., over the use of underground tanks. Any discharge from on-site treatment works will need to be included in the approved rate.

**12.8** Culverting (piping) of a watercourse is not advised unless there is no other alternative. Culverting can lead to an unacceptable loss of habitat, reduced flood storage volume, reduced flow capacity, and increased difficulty in future maintenance. Where a culvert is proposed consent will also need to be given from the Lead Local Flood Authority (West Sussex County Council) or its agent (Chichester District Council) for ordinary watercourses **and should be consistent with the WSCC Culverting Policy**. and from the Environment Agency for Main Rivers. **Culverting of or into Main Rivers is regulated by the Environmental Permitting Regulations (EPR) and an application for a permit should be sought from the Environment Agency.**

**12.9** If access is required across a watercourse, then a single continuous spanning bridge is preferred, in order to maintain the capacity of the watercourse. Any structure should be as short as reasonably possible in terms of its length along the watercourse, in order to maintain good access for future maintenance.



## 12 . Surface Water Drainage

**12.10** SuDS need to be designed to remain safe and accessible for the life-time of the developments they serve, as well taking into account future amenity and maintenance requirements. Details should be provided which demonstrate the future management, funding and maintenance of the entire scheme.



### *How to manage the impacts of high groundwater levels*

We would recommend that in designing your developments you consider the use of plastic pipes **or similar material along with secure joints** for any foul and surface water drains or sewers connecting in to the public foul sewer **to prevent the ingress of ground water or land drainage into the public sewer.**

**13.1** Policy 40 of the Chichester Local Plan Key Policies sets out a standard for water use in new dwellings of 110 litres per person per day. This comprises 105 litres for internal water use and an allowance of 5 litres per person per day for external water use. Where Local Plan policies have more stringent standards, these will be enforced through the Building Regulations. Regulation 36(3) of the Building Regulations 2010 (as amended) applies. Approved Document G (2015 edition) sets out the regulatory requirements and guidance on achieving this option within the Regulations. Appendix A of Approved Document G provides a Water Efficiency Calculator which aids achievement of these standards.

**13.2** 7.2 The relevant Building Control Body must be informed that the optional 110 litre standard applies to the development due to planning policy requirements.

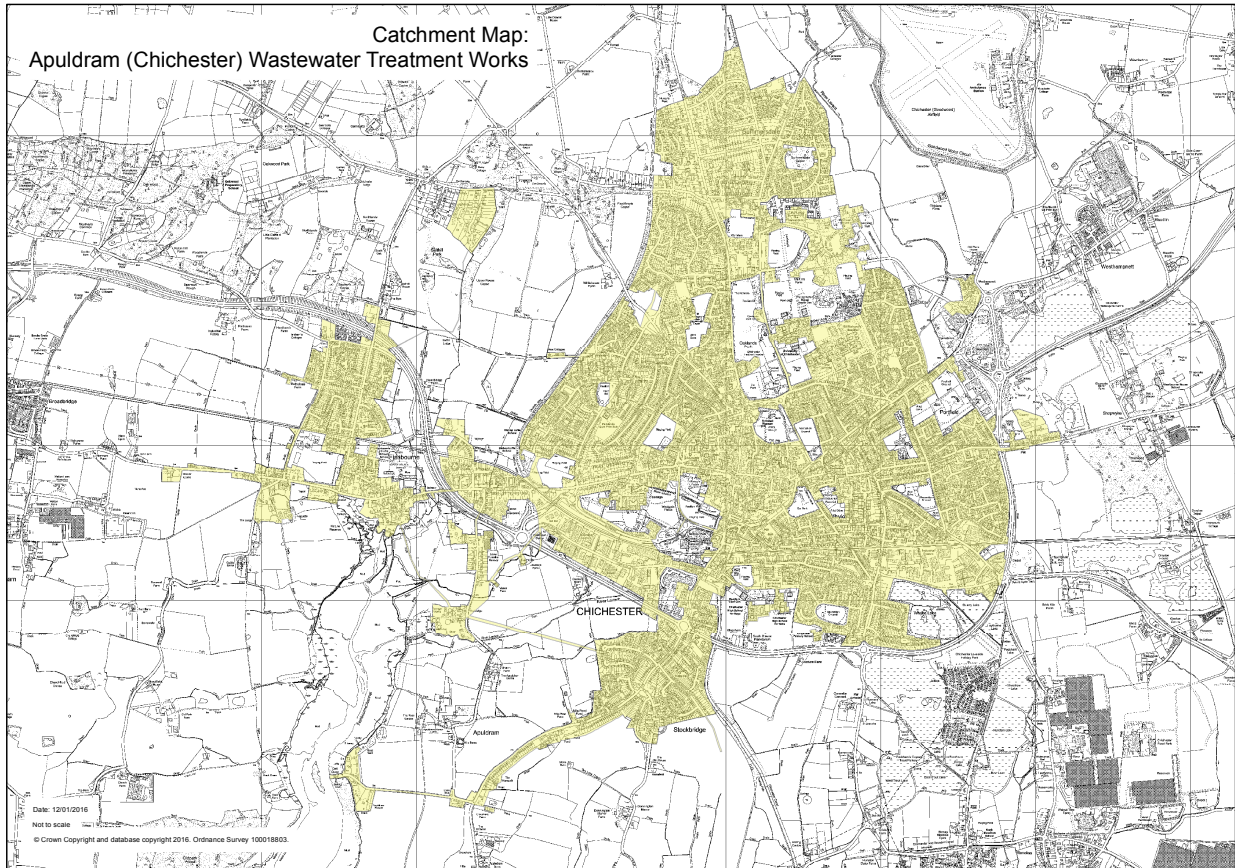
**13.3** 7.3 This option has been specified in Policy in order to reduce the amount of water being used to help mitigate for the impacts of climate change, protect water quality and make a more efficient use of limited resources.

**13.4** 7.4 The Council encourages developers who wish to voluntarily enter into an agreement for a higher standard of water efficiency than specified in Policy 40. We will work with developers to consider further voluntary measures to increase water efficiency from new developments. This may be as part of wider mitigation for increased wastewater flows, or to demonstrate an exemplary sustainable development.

**13.5** 7.5 A range of case studies which demonstrate how water efficiency measures can be integrated into new developments is available at [www.water-efficient-buildings.org.uk](http://www.water-efficient-buildings.org.uk)

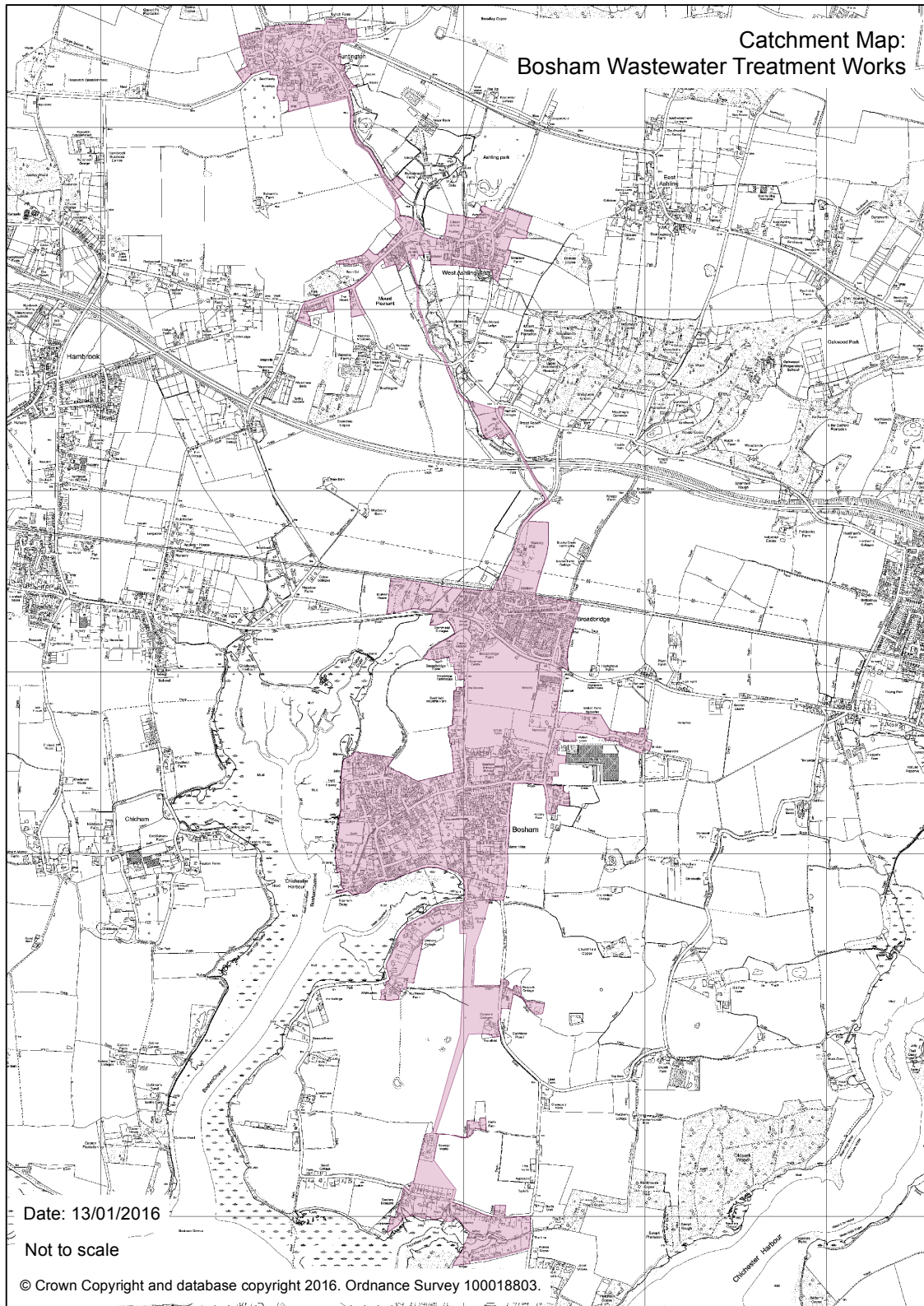
## 14 . Appendix 1 – Wastewater Treatment Works Catchment Map

**Map 14.1**



## 14 . Appendix 1 – Wastewater Treatment Works Catchment Map

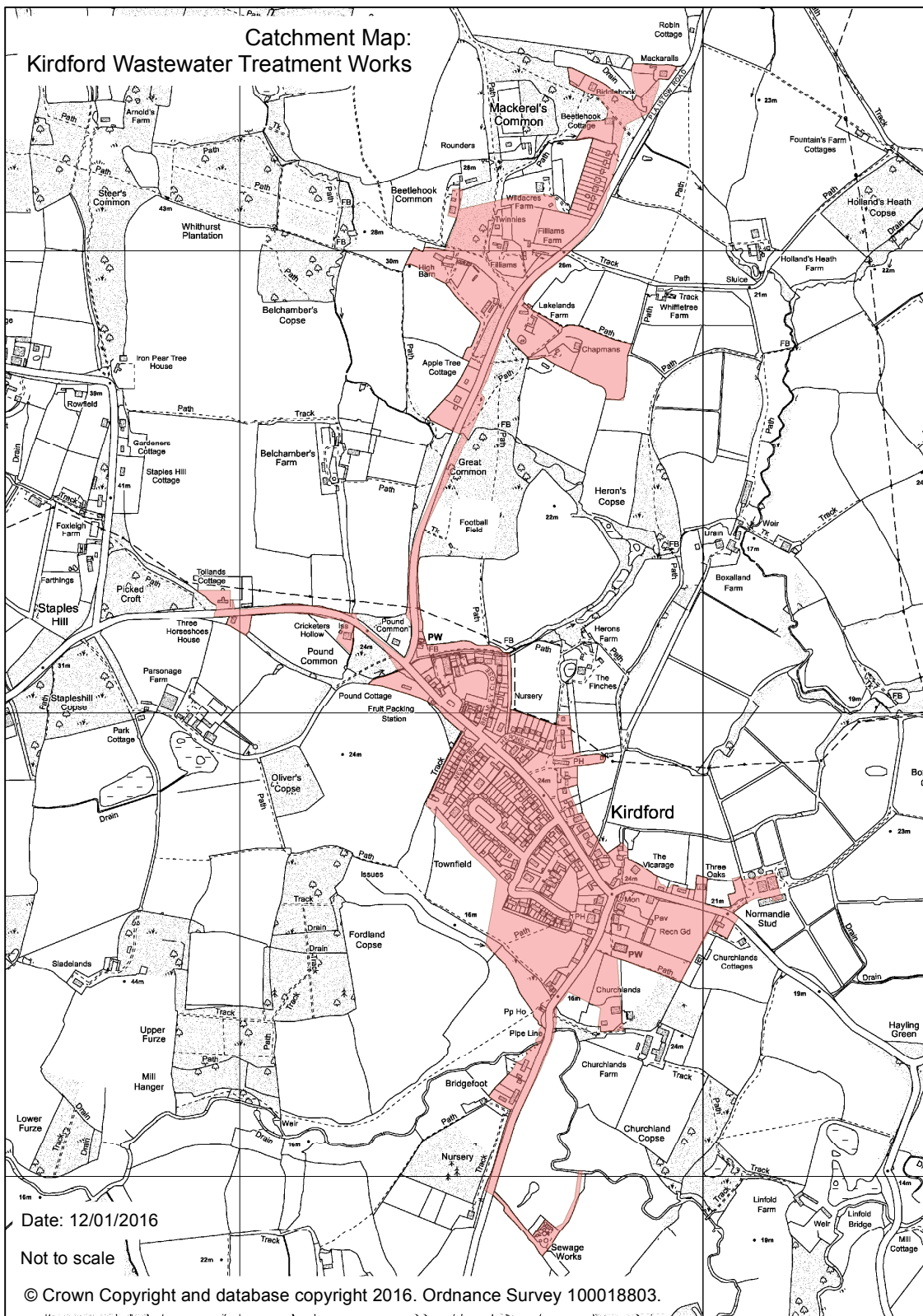
Map 14.2





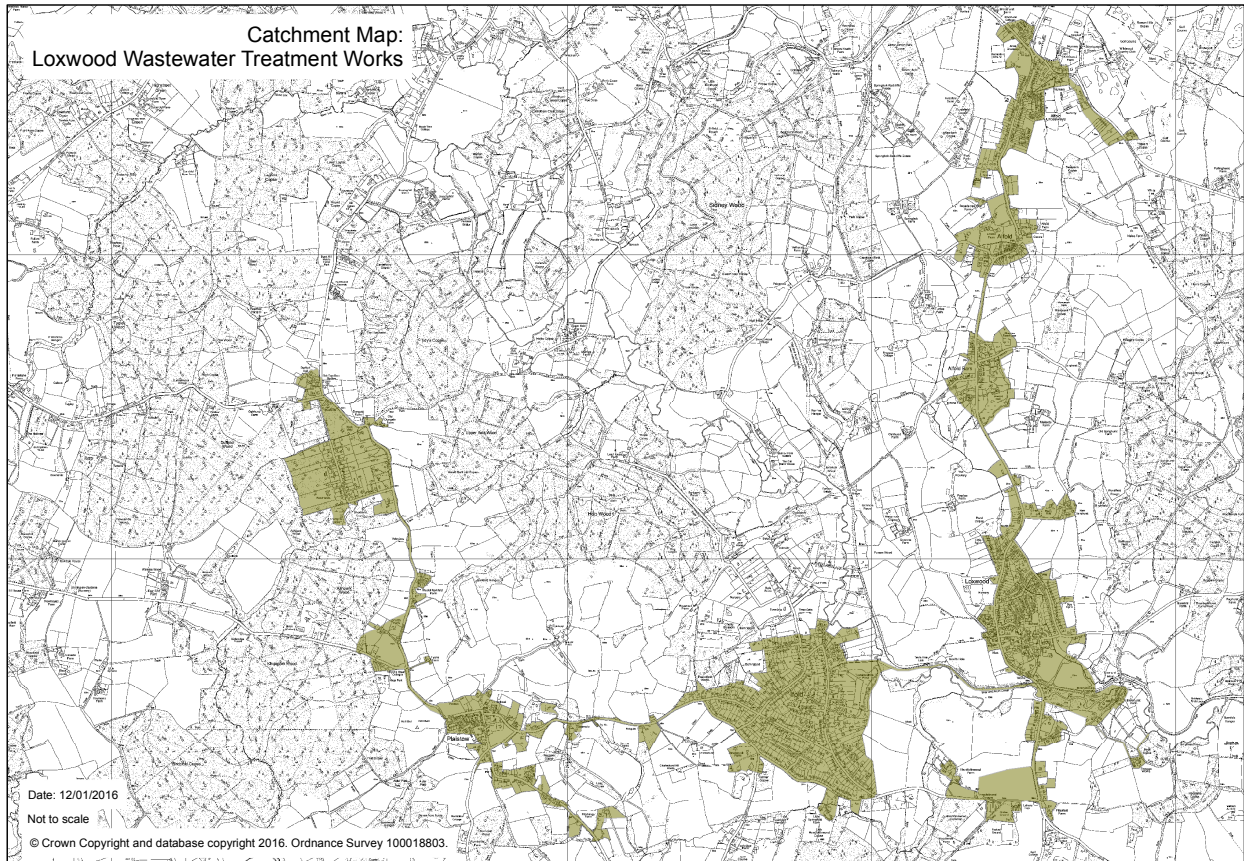
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### Map 14.3



## 14 . Appendix 1 – Wastewater Treatment Works Catchment Map

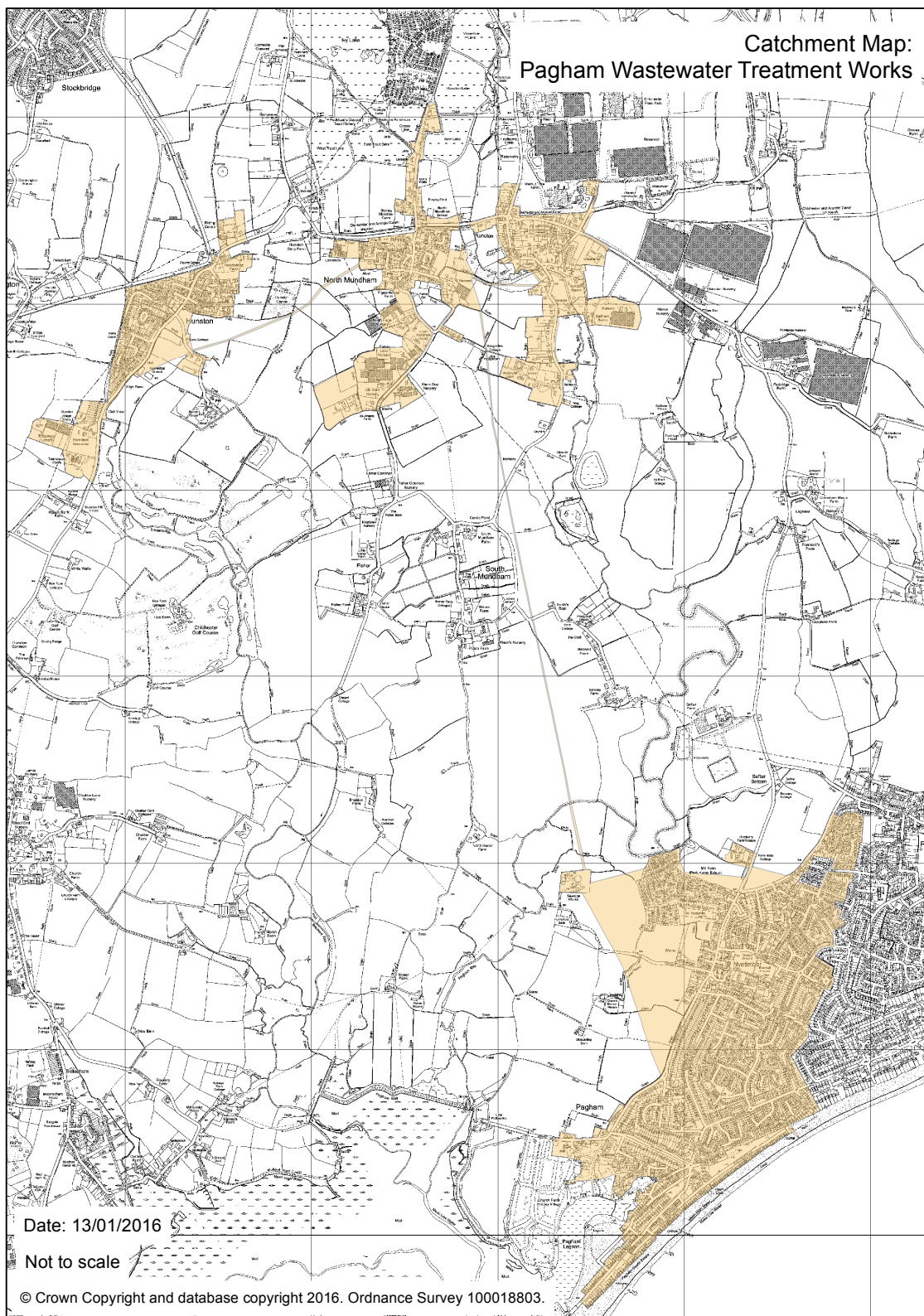
**Map 14.4**



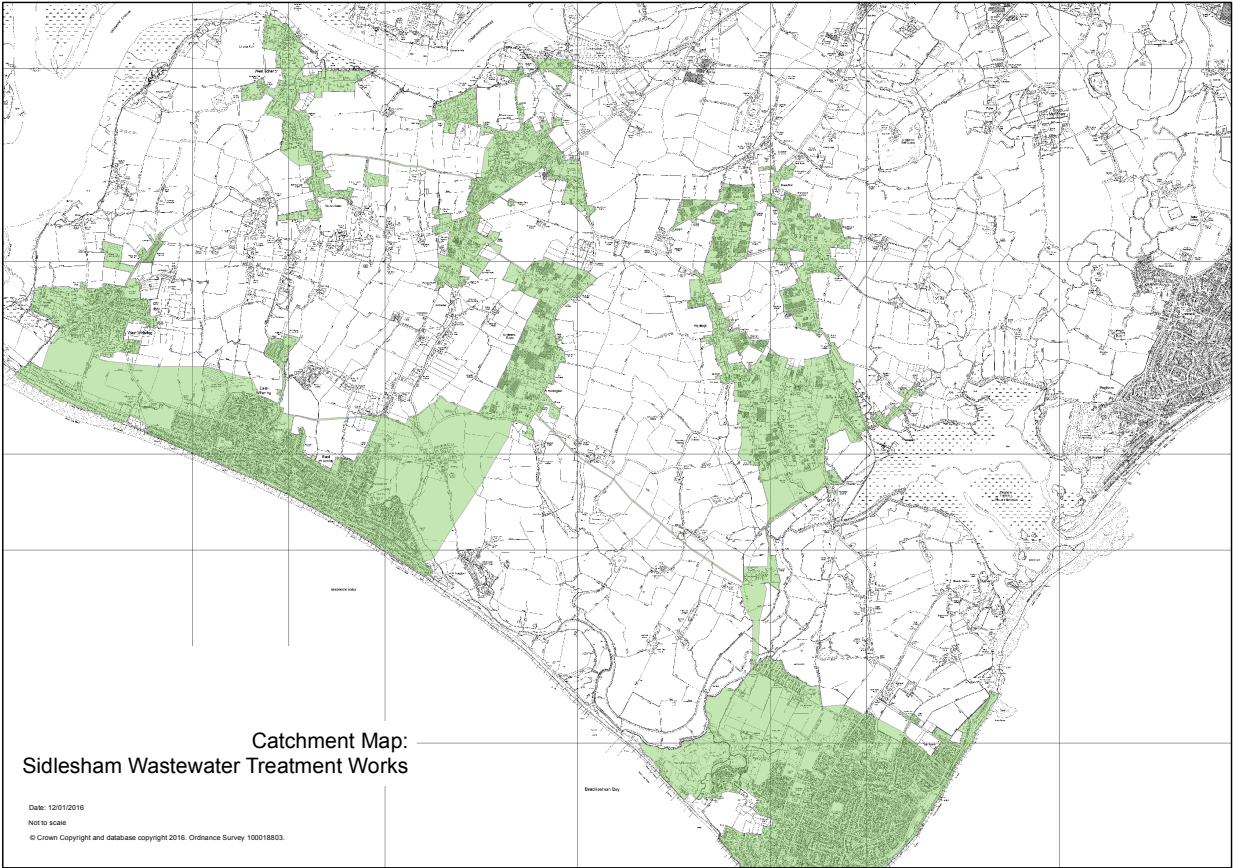


## 14 . Appendix 1 – Wastewater Treatment Works Catchment Map

Map 14.5

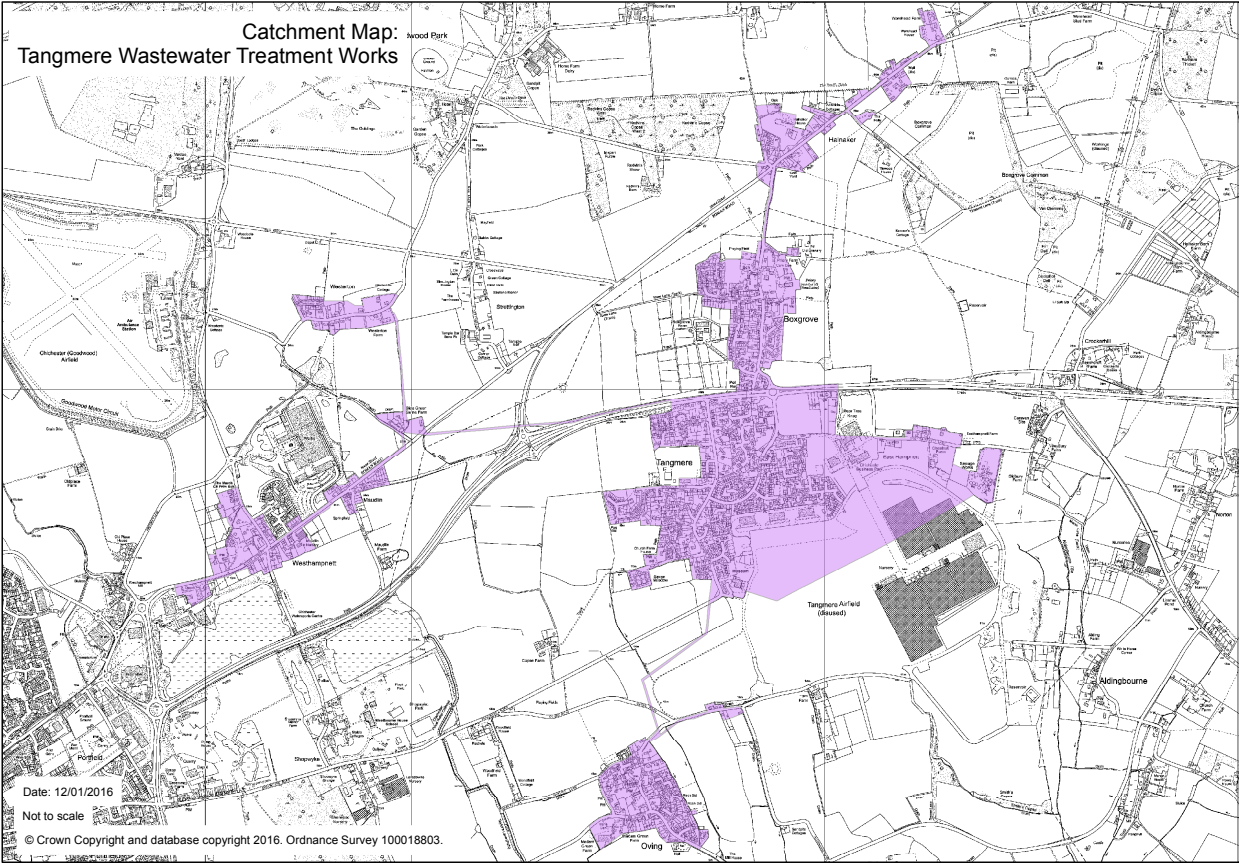


Map 14.6



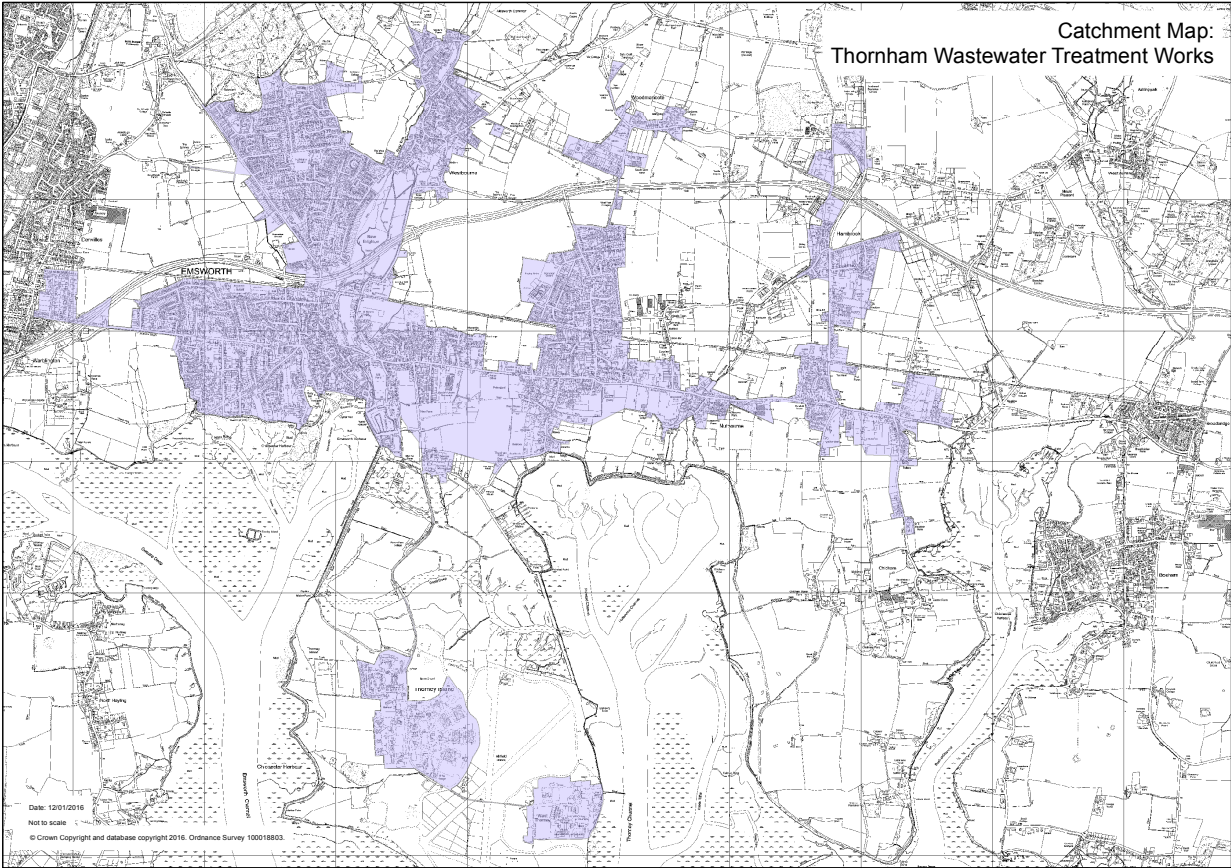
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### Map 14.7



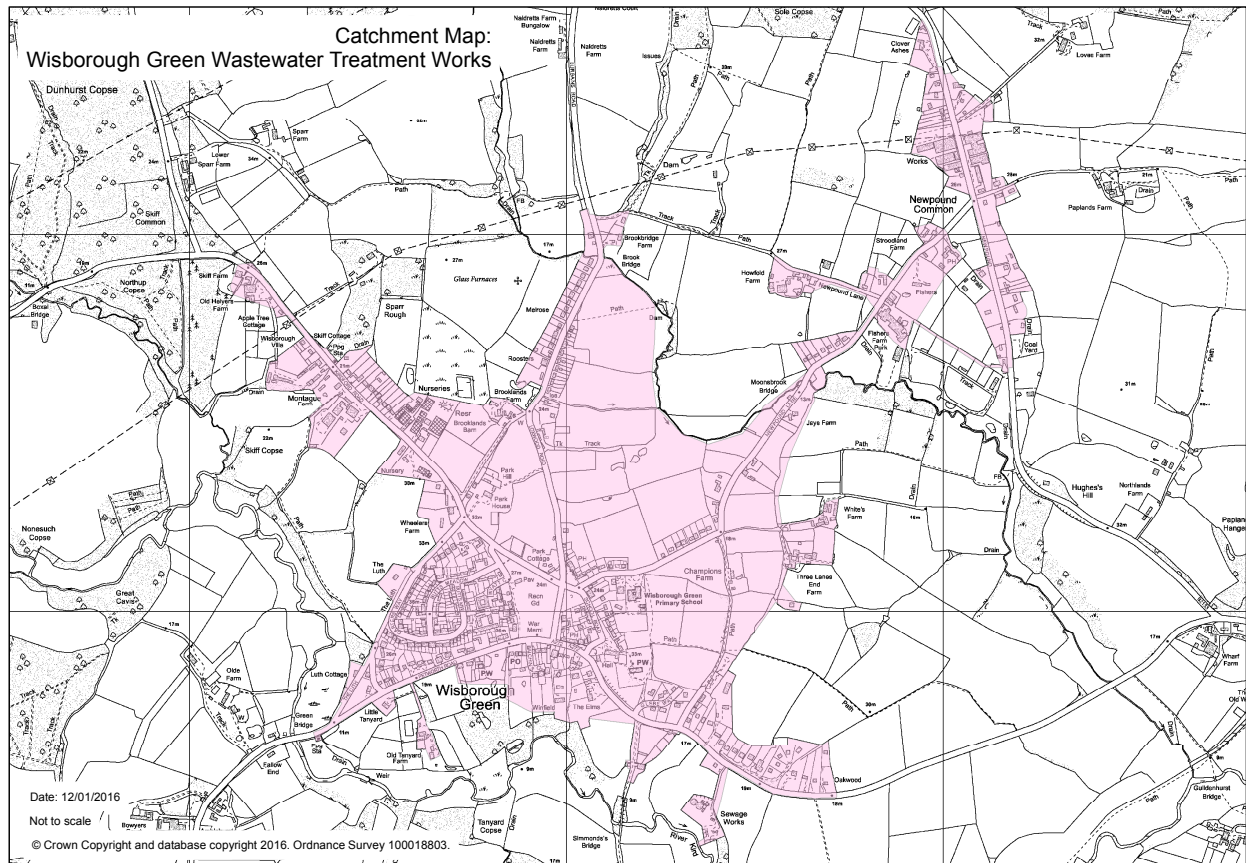


Map 14.8



## 14 . Appendix 1 – Wastewater Treatment Works Catchment Map

### Map 14.9



## 15 . Appendix 2 – Drainage Impact Assessment

**Table 15.1**

Applicant Details:
Name:
Address:
Telephone No:
Email:
<b>I hereby confirm that I have completed this form to the best of my knowledge. Any facts, plans or drawings and/or additional information is true and accurate.</b>

Please provide details of the proposed development below:

### 1. Existing Drainage System

Is the current use on the site served by a mains connection Y/N

If ~~so~~ **yes**, please provide details of the existing drainage arrangement for the site including identifying the flows to the public foul sewer.

--

### 2. Proposed Drainage Arrangement

Please provide details of the proposed drainage system for the new development including relevant mitigation measures to be implemented on the site including water efficiency measures.

--

Please identify the proposed loads to the public foul sewer from the new development. More information on this can be found in the document "British Water: Loads and Flows" on the [Government](#) website.

--

### 3. Comparison of Flow to Public Foul Sewer pre- and post- development

Will your development result in a net increase in flow to the sewer network?

--

## 15 . Appendix 2 – Drainage Impact Assessment

### 4. Further Mitigation

Where the above demonstrates a net increase in flows to the sewer network please consider further mitigation that may be possible to reduce the flows further.

If no further mitigation is possible please set out your proposal to manage foul drainage from the development.

### *Wastewater services (foul water drainage)*

**16.1** Wastewater services can be separated into two elements: wastewater drainage (sewerage) and wastewater treatment.

### *Wastewater drainage (sewerage)*

**16.2** Wastewater drainage is the transportation of wastewater arising from individual homes, businesses and community buildings across intervening land to the wastewater treatment works for treatment. The sewerage system, which transports the flows, is made up of a network of underground sewers and associated infrastructure such as pumping stations.

### *Wastewater treatment*

**16.3** Once the flows arrive at the works, the wastewater is treated to remove pollutants. In the treatment of wastewater, strict environmental quality standards must be met, as set by the Environment Agency.

### *Wastewater services to new development*

**16.4** When development proposals come forward, the planning authority will look to satisfy itself that there is (a) sufficient sewerage capacity available to serve the site (i.e. the underground pipes and associated pumping stations have capacity to accommodate the increased flows without a significant increase in the risk of flooding), or sufficient capacity can be provided in parallel with the development in collaboration with the service provider and (b) sufficient wastewater treatment capacity is available in the catchments that are environmentally constrained, or additional capacity can be provided by the service provider in parallel with the development.

### *Environmental Permit*

**16.5** Under the Environmental Permitting Regulations 2010 any persons wishing to discharge polluting substances into the environment are required to apply for an environment permit. For wastewater treatment these permits restrict the quality of the discharge. Depending on the location, the permit will control different elements. Coastal discharges are limited by nitrogen and inland are limited by phosphorous.

### *Best Available Technology (BAT)*

**16.6** This is a term applied when regulating the discharge of polluting substances. It is the most advanced technology that is economically viable.

### *Public Foul Sewer*

**16.7** This is also referred to as the “mains” and is the sewer network owned and operated by the sewerage undertaker.

### *Groundwater*

## 16 . Appendix 3 - Glossary of Terms

**16.8** *Rainwater which is held underground, filling the spaces in soil, sediment and rocks.*

### **Surface Water Drainage**

**16.9** *The removal of rainwater from a property, historically this tended to be into public sewers but is now more commonly to a soakaway or other sustainable drainage system (SuDS).*

### **Sustainable Drainage System**

**16.10** *A drainage solution which matches as closely as practical to the existing natural drainage regime. SuDS may include soakaways, permeable surfaces and/or attenuated systems such as ponds or tanks with a controlled release of water. SuDS are used to ensure there is no increase in flood risk downstream by controlling the rate at which water leaves a development.*

## 17 . Links and Further Guidance

Centre for Ecology and Hydrology:

<http://www.ceh.ac.uk/>

CIRIA:

<http://www.ciria.org/>

Susdrain/CIRIA publications:

<http://www.susdrain.org/resources/ciria-guidance.html>

Building Regulations Part G (Sanitation, Hot Water Safety and Water Efficiency):

<http://www.planningportal.gov.uk/buildingregulations/approveddocuments/partg/>

Building Regulations Approved Document G:

<http://www.planningportal.gov.uk/buildingregulations/approveddocuments/partg/approved>

**Building Regulations Part H (Drainage and Waste Disposal)**

<https://www.gov.uk/government/publications/drainage-and-waste-disposal-approved-document-h>

West Sussex County Council Surface Water Management Plan (Manhood Peninsula Final Report):

[https://www.westsussex.gov.uk/media/5607/manhood\\_peninsula\\_swmp\\_final\\_report.pdf](https://www.westsussex.gov.uk/media/5607/manhood_peninsula_swmp_final_report.pdf)

**Riverside ownership rights and responsibilities**

<https://www.gov.uk/government/publications/riverside-ownership-rights-and-responsibilities>

**Planning Practice Guidance**

<http://planningguidance.communities.gov.uk/blog/guidance/flood-risk-and-coastal-change/>

**Flood Risk Assessment: Standing Advice**

<https://www.gov.uk/guidance/flood-risk-assessment-standing-advice>

**CIRIA - Infiltration Drainage**

<http://www.ciria.org/ItemDetail?iProductCode=R156&Category=BOOK>

**West Sussex County Council Local Flood Risk Management Strategy**

<https://www.westsussex.gov.uk/fire-emergencies-and-crime/dealing-with-extreme-weather/dealing-with-flooding/flood-risk-management/local-flood-risk-management-strategy/>

**General binding rules for small sewage discharges in England**

<https://www.gov.uk/government/publications/small-sewage-discharges-in-england-general-binding-rules>

**Septic tanks and treatment plants: permits and general binding rules**

<https://www.gov.uk/permits-you-need-for-septic-tanks>



## 18 . Contact details

### ***Chichester District Council***

For pre-application enquiries please contact a planning officer at:  
[dcplanning@chichester.gov.uk](mailto:dcplanning@chichester.gov.uk) or telephone 01243 534734.

### ***Environment Agency***

For pre-planning enquiries please contact the Sustainable Places team at:  
[planningssd@environment-agency.gov.uk](mailto:planningssd@environment-agency.gov.uk) in the first instance.

For enquiries relating to an environmental permit please contact:  
[enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk) or telephone 03708 506 506.

### ***Southern Water***

For capacity checks and other enquiries for your proposed development please contact the Developer Services team at: [developerservices@southernwater.co.uk](mailto:developerservices@southernwater.co.uk) or telephone 0330 303 0119

Further information is also available at:  
<https://www.southernwater.co.uk/developers-and-builders-overview>

### ***West Sussex County Council***

For enquiries please contact the Council at:  
[FRM@westsussex.gov.uk](mailto:FRM@westsussex.gov.uk) or telephone 01243 777100.



