



WATER ACT 2003
WATER SUPPLY LICENSING

Guidance on Access Codes

June 2005

Guidance on access codes

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1. Introduction and outline

1.1 Background

The Water Industry Act 1991 (WIA91)¹ will permit a company that is the holder of a Water Supply Licence (referred to in this guidance as a licensee) to have access² to a water undertaker's³ supply system⁴ to enable the licensee to supply water to eligible premises. Prospective licensees will have to obtain a Water Supply Licence before they can supply water through a water undertaker's supply system in competition with the water undertaker. Our guidance on the licence application process sets out the process and the information we will require from an applicant⁵. Prospective suppliers can apply for either of the following:

- A **retail licence** - a Water Supply Licence that authorises the holder to use a water undertaker's supply system for the purpose of supplying water to the premises of its customers ('the retail authorisation'). A retail licence therefore permits the supplier to purchase a wholesale supply of water from a water undertaker and to retail it to customers at eligible premises⁶.
- A **combined licence** - a Water Supply Licence that gives the holder the 'supplementary authorisation' in addition to the retail authorisation. The supplementary authorisation allows the holder to introduce water into a water undertaker's supply system by means of which any particular supply of water to the premises under the licensee's retail authorisation is to take place⁷.

Section 17A(3) WIA91 sets out the following three requirements that must be satisfied in relation to each of the premises supplied by a licensee:

- the customer's premises are not household premises⁸;

¹ In this guidance, references to WIA91 refer to WIA91 as amended by Water Act 2003 (WA03) once the relevant provisions have been brought into force.

² The term 'access' refers both to wholesale supplies of water by a water undertaker to a licensee for the purpose of the licensee's making a retail supply of water to the premises of the licensee's customer and to combined supplies (the introduction by the licensee of water into the water undertaker's supply system in order to make a retail supply of water by the licensee to its customer through the water undertaker's supply system).

³ A 'water undertaker' is a company appointed under section 6 WIA91 to provide water services in respect of a defined geographical area of England and Wales.

⁴ A water undertaker's supply system is defined in section 17B(5) WIA91 for the purposes of the new licensing arrangements as comprising any water mains and other pipes which are used for conveying drinking (potable) water from the water undertaker's treatment works to its customers' premises, and any non-potable networks which are not connected to any potable system. Access to all other facilities (i.e. treatment works of a potable supply system and any upstream facility) is outside this licensing regime.

⁵ The licence application process is part of the 'Guidance on The Water Supply Licence (Application) process and Regulations 2005'.

⁶ See sections 17A(1), (2) and (4) WIA91.

⁷ See section 17A(5) and (6) WIA91.

⁸ The definition of "household premises" is set out in Section 17C WIA91.

- when the licensee first enters into an undertaking with a customer to give the supply, the total quantity of water estimated to be supplied to the premises annually by the licensee is not less than 50 megalitres (MI)⁹, (the 'threshold requirement')¹⁰; and
- the premises are not being supplied by another licensee (but may be supplied by a licensee and one or more water undertakers).

By definition, customers can only be supplied if they are connected to the supply system. Similarly, section 17A(5) provides that the supplementary authorisation is an authorisation to the licensee to introduce water into a water undertaker's supply system, by means of which any particular retail supply of water is to take place. Hence, a physical link is required between the combined licensee's introduction point and its customer's premises. This will allow the water undertaker to optimise the use of its and the licensee's resources. The introduction of water may allow the water undertaker to reduce the output of one or more of its sources or reconfigure how it uses them. We refer to this as supply by displacement.

Under sections 66A-66C the water undertaker is required to take steps to enable a supply to be made. These steps may include:

- the creation or reinforcement of a link or the connection of a new customer or treatment works to the supply system; and
- ensuring its system remains in balance after the introduction takes place.

Licensees making use of the water undertaker's supply system for this purpose will be expected to pay access charges to the water undertaker, including the costs of any steps taken by the water undertaker. These must be set in accordance with the costs principle. It will be for licensees to judge in the light of these charges whether it is economic for them to proceed with their proposals to supply customers at eligible premises.

Each water undertaker will remain vertically integrated¹¹. It will be responsible for the safe and efficient operation of its supply system and will retain overall control of all aspects of distribution. It will continue to convey water to premises connected to its water supply system (including premises of persons who are supplied by licensees).

⁹ 50 million litres, or 50,000 cubic metres (m³).

¹⁰ See section 17D WIA91.

¹¹ Vertically integrated water undertakers operate at every level of the water services supply chain, i.e. ownership and/or control of the operation of abstractions, reservoirs, pumping stations, treatment works and/or all elements of the public distribution network.

1.2 Purpose of our guidance

Section 66D(4) WIA91 requires us¹² to issue guidance in accordance with which the terms and conditions of agreements under sections 66A-66C WIA91 shall be made. This guidance meets that requirement. However, most of our guidance in chapter 3 on the application process is non-statutory, except for section 3.5 on confidentiality and where we refer to matters to be covered in the terms and conditions of the access agreement. Some parts are non-statutory because they explain, amongst other things, the process by which access agreements are reached rather than the terms and conditions of those agreements.

Each water undertaker is required by condition of appointment R¹³ to publish an access code in accordance with this guidance, setting out the basis upon which it will permit access to its supply system. We will expand Condition R (2)(a) to include a reference to other guidance issued by us on access, and a requirement to comply with it, once we have consulted such appropriate persons first.

Access codes will contain the standard policies common to all water undertakers and any specific terms for access to a particular water undertaker's supply system. Access agreements (which will incorporate the terms and conditions set out in the access code) are required by section 66D WIA91 to be made in accordance with this guidance.

This guidance applies equally to:

- wholesale water supplies by primary water undertakers to licensees¹⁴;
- the introduction of water into a water undertaker's supply system¹⁵;
- water supplies by secondary water undertakers to licensees; and
- potable and non-potable supplies,¹⁶ unless stated otherwise.

This guidance sets out the standard provisions that we expect a water undertaker to include in its access code and access agreements. Provided that they comply with this guidance and the rest of the statutory framework, water undertakers and licensees will have discretion to decide what works best for them. For example, the licensee may require a standard of service other than that usually offered by a water undertaker, which should be specified in the access agreement. A balance must be struck between ensuring that the process of agreeing access to a water undertaker's supply system is supported by a comprehensive statutory framework, and allowing a

¹² Under the WIA91, once the relevant provisions have been brought into force, the role of a single Director General of Water Services (the Director) will be replaced with the Water Services Regulation Authority (the Authority) which will be run by a Board. In anticipation of this change, Ofwat has already appointed an advisory board that includes independent non-executive advisory directors. For consistency and continuity, for the purposes of this consultation, the Director and the Authority are referred to as Ofwat.

¹³ References throughout this guidance to appointment and licence conditions are to those we consulted on in December 2004. These may change when the conditions are finalised.

¹⁴ Section 66A WIA91.

¹⁵ Section 66B WIA91.

¹⁶ Section 17B(5) WIA91 defines a water undertaker's supply system for the purposes of Chapter 1A.

degree of flexibility. Therefore, the requirements in Instruments of Appointment and Water Supply Licences give water undertakers and licensees some flexibility to make provision for other contractual and customer-specific issues in access agreements, provided they are made in accordance with our access code guidance.

Water undertakers are required to publish information to enable the licensee to estimate the charges for access to the supply system¹⁷. An objective of this guidance is to enable water undertakers to provide indicative access prices for prospective entrants. It does this by:

- explaining the costs principle, in accordance with which access charges must be fixed¹⁸ (the costs principle is explained in chapter 6);
- setting out a consistent and transparent methodology; and
- confirming the treatment of various price components.

Water undertakers should deal with applications promptly and efficiently. One way of achieving this would be for licensees and water undertakers to agree to set up a wholesale supply master agreement if a licensee expects to have many wholesale customers within a water undertaker's area (see chapter 3). Each time a new wholesale supply application is made, the site and customer-specific details could be added to the existing master agreement in a customer-specific schedule. A water undertaker and a licensee should ensure the arrangements are covered by an access agreement each time the licensee wants access to the water undertaker's supply system. The access agreement is the contract between the water undertaker and the licensee and should take into account any specific local issues.

Sections 66D(7) and 66D(8) WIA91 allow us to require the parties to an access agreement to modify or terminate the agreement if it appears to us that the agreement has not been made in accordance with this guidance, or if the charges to be made to the licensee have not been fixed in accordance with the costs principle. Any such requirement is enforceable by us under section 18 WIA91. We will deal with issues on a case-by-case basis when making determinations, as explained in our procedure for handling water supply licensing determinations (the 'WSL Determinations Procedure').

1.3 Developing access terms

Water undertakers must publish their access codes, comply with them and keep them updated. They should review their access codes each year and modify them at any time¹⁹, for example, to reflect developments in water supply competition, consistent with our guidance. Access codes must conform to our guidance and any changes to our guidance must be reflected in access codes. Water undertakers have to publish their access codes by the end of August 2005 in an easily accessible form, and provide copies free of charge when requested²⁰.

¹⁷ See Condition R, paragraph 2(iii).

¹⁸ See sections 66D(3), 66E WIA91.

¹⁹ Condition R, paragraph 3(1).

²⁰ Condition R paragraph 4(1)(b).

This access code guidance has been prepared on the basis of the 50 MI/yr threshold requirement. It will be updated where necessary to reflect experience. We will undertake a review of the competition framework in conjunction with the Environment Agency and Drinking Water Inspectorate (DWI) within three years of its introduction.

1.4 Structure of the guidance

The rest of this guidance is structured as follows:

- Chapter 2 outlines the obligations on water undertakers and licensees.
- Chapter 3 outlines the process for negotiating and concluding access agreements.
- Chapter 4 outlines the general access agreement terms.
- Chapter 5 outlines the operational issues that should be included in an access agreement.
- Chapter 6 outlines the costs principle and pricing issues to calculate access prices.
- Chapter 7 briefly explains the terms used in the guidance.
- Appendix 1 sets out extracts from the WIA91.
- Appendix 2 sets out the methodology for calculating case-specific access prices.
- Appendix 3 sets out the methodology for calculating indicative access prices.

This document sets out our understanding of provisions of the WIA91 and of other regulations and orders. It is not a substitute for the WIA91 or the regulations and orders made under the WIA91, or for any other legal provision. This document should be read in conjunction with those legal instruments and England and Wales case law. Anyone in doubt about how they may be affected by the WIA91 should seek legal advice.

2. Obligations

This chapter outlines the duties on water undertakers and licensees under chapter 2A WIA91.

2.1 Water undertakers

2.1.1 Water Industry Act 1991

Each of the following obligations will arise, unless any of the exceptions in 2.1.2 below applies.

Section 66A WIA91: Wholesale water supply by primary water undertaker

This applies when a licensee requests its primary water undertaker²¹ to provide it with a supply of water for the purpose of supplying water to the premises of the licensee's customers in accordance with the retail authorisation, and the premises are in the area of the water undertaker²².

Where a licensee makes such a request, the water undertaker is under a duty to take steps to enable the supply to be provided (for example, by connecting a new customer to the main). Having taken those steps, the water undertaker is under a duty to provide that supply²³.

The period for which and the terms and conditions on which the water undertaker is to carry out these duties are agreed between the water undertaker and the licensee in accordance with this access code guidance and the costs principle²⁴. If no agreement can be reached, and the licensee refers the matter to us, we determine the period, terms and conditions on which the water undertaker is to carry out those duties, if they are acceptable to the licensee²⁵.

Section 66B WIA91: Introduction of water into water undertaker's supply system

This applies when a combined licensee requests a water undertaker's permission to introduce water into that water undertaker's supply system by means of which any particular supply of water to customers at eligible premises under the combined licensee's retail authorisation is to take place.

It also applies when a water undertaker agrees to permit a licensee holding a combined licence to introduce water into the water undertaker's treatment works and, in connection with that introduction, the licensee requests the water undertaker

²¹ A water undertaker is the primary water undertaker of a licensee if the undertaker's supply system is to be used for the purpose of making the supply to the premises mentioned: section 66A(8).

²² Section 66A(1) WIA91.

²³ Section 66A(2) WIA91.

²⁴ Sections 66A(2), 66D(2)(a) WIA91.

²⁵ Section 66D(2)(b) WIA91.

to permit it to introduce water into the water undertaker's supply system for the purpose of making specific retail supplies to specific customers at eligible premises under the combined licensee's retail authorisation. However, access to a water undertaker's other pipes or treatment works itself is not provided for under the licensing provisions of the WIA91 and is a matter for agreement.

Where a licensee makes a request under section 66B, the water undertaker has a duty to take steps to enable the licensee to make the requested introduction of water into the water undertaker's supply system. Those steps might include laying a pipe to connect the licensee's treatment works (or source, in the case of a non-potable supply) with the water undertaker's supply system. Having taken such steps, the water undertaker must permit the requested introduction of water into its supply system.

The period for which and the terms and conditions on which the water undertaker is to carry out those duties (including the steps to be taken to enable the introduction to be made and permitted) are those that are agreed between the water undertaker and the licensee in accordance with this access code guidance and the costs principle.²⁶ If no agreement can be reached, and if the licensee refers the matter to us, the period for which and the terms and conditions on which the water undertaker is to perform those duties are determined by us, if they are acceptable to the licensee.²⁷

Section 66C WIA91: Wholesale water supply by secondary water undertaker

This applies where a licensee with a combined licence²⁸ who has a customer in the area of a primary water undertaker requests:

- a secondary water undertaker²⁹ to provide a supply of water to enable the licensee to supply its customer's premises using the primary water undertaker's supply system and in accordance with its retail authorisation; and
- the primary water undertaker to permit the licensee to introduce that water into its supply system.

If a combined licensee makes such a request, the secondary water undertaker is under a duty to take steps to enable the supply to be provided. Having taken those steps, the secondary water undertaker is under a duty to provide that supply.

Where a combined licensee makes such a request to the primary water undertaker, the primary water undertaker is under a duty to take steps to enable the licensee to make the introduction of the requested supply of water into the primary water undertaker's supply system. These steps may include connecting the primary water undertaker's supply system to the secondary water undertaker's supply system and connecting the premises to the primary water undertaker's supply system³⁰. Having

²⁶ Sections 66B(3) and 66D(2)(a) WIA91.

²⁷ Section 66D(2)(b) WIA91.

²⁸ See section 66B(12).

²⁹ A secondary water undertaker is a water undertaker other than a primary water undertaker. Section 66C(i)(a)(i)

³⁰ See section 66C(3) WIA91.

taken such steps, the water undertaker is under a duty to permit the introduction of water into its supply system.

The period for which and the terms and conditions on which the primary and secondary water undertakers are to carry out those duties (including the steps to be taken to enable the supply of water to be made and to enable and to permit the introduction of that supply into the primary water undertaker's supply system) are those that are agreed between the licensee and the water undertakers (and in accordance with this access code guidance and the costs principle).³¹ If no agreement can be reached, and if the licensee refers the matter to us, the period for which and the terms and conditions on which the water undertakers are to carry out those duties are those determined by us, if they are acceptable to the licensee.³²

In these circumstances, the supply of water by a licensee to a set of eligible premises of a customer involves two distinct transactions:

- first, the secondary water undertaker selling water to the licensee; and
- second, the licensee introducing that water into the primary water undertaker's supply system for supply to the licensee's customer.

In practice, the licensee, primary water undertaker and secondary water undertaker may find it useful to agree trilaterally the terms and conditions of access.

2.1.2 Conditions under which duties do not apply

Sections 66A-66C WIA91 contain conditions which, if satisfied, prevent the duties set out in section 2.1.1 above from arising. Under section 66A(3) WIA91, a water undertaker has no duty to provide a supply of water to a licensee, or to take any steps to enable it to provide such a supply if both the first and second conditions below are satisfied, or if the third condition below is satisfied.

The first condition is that:

- the premises to be supplied by the licensee consist only of land, they do not include a building or part of a building; or
- the supply to be made by the licensee to the premises is not for domestic purposes.³³

The second condition is that the provision of the supply by the water undertaker would:

- require the water undertaker to incur unreasonable expenditure in carrying out works, in order to meet all its existing obligations to supply water for domestic or

³¹ Sections 66C(2), 66D(2)(b) WIA91.

³² Section 66D(2)(b) WIA91.

³³ 'Domestic purposes' refers to drinking, washing, cooking, central heating and sanitary purposes: see section 218 WIA91.

- other purposes, together with its probable future obligations to supply water to buildings or parts of buildings for domestic purposes; or
- otherwise put at risk the water undertaker's ability to meet any of those existing or probable obligations.

The third condition is that there is a contravention, as determined in regulations made under section 66A(6) of the WIA91, in relation to the water fittings used or to be used in connection with:

- the supply of water to the premises to be supplied by the licensee; or
- the use of water in those premises.

Under sections 66B and 66C WIA91, a primary water undertaker has no duty to permit the introduction of water by a combined licensee into its supply system, and under section 66C WIA91 a secondary water undertaker has no obligation to provide a wholesale supply of water, if either the first or second condition below is satisfied:

The first condition is that providing the supply or allowing the introduction of the water into the primary water undertaker's supply system:

- would require the water undertaker, in order to meet all its existing obligations to supply water for domestic or other purposes, together with its probable future obligations to supply buildings and parts of buildings with water for domestic purposes, to incur unreasonable expenditure in carrying out works; or
- would otherwise put at risk its ability to meet any of those existing or probable future obligations.

The second condition is that there is a contravention of the prescribed requirements of regulations made under section 74 WIA91 in relation to the water fittings used or to be used in connection with:

- the supply of water to the premises to be supplied by the licensee; or
- the use of water in those premises.

We may determine, in any case referred to us by a licensee, whether any of the foregoing conditions is satisfied.³⁴

2.2 Water Supply Licensees

2.2.1 Water Industry Act 1991

Section 66D(4) WIA91 requires that the terms and conditions of any access agreement follow this guidance and any other guidance we issue under that section.

³⁴ Section 66D(1) WIA91.

If there is no agreement between the parties, any determination we make under section 66D(2) WIA91 is legally binding on both the water undertaker and the licensee if that determination is acceptable to the licensee.

Sections 66I and 66J WIA91 contain two important prohibitions. In both cases the supply system is as defined in section 17B(5) WIA91. Section 66I WIA91 prohibits unauthorised use of a water undertaker's supply system for the purpose of supplying water to a customer's premises. Unauthorised use means use otherwise than by the water undertaker or by a licensee under the terms of its licence. Under section 66I(3) WIA91, unauthorised use for the purpose of supplying water to a customer's premises is a criminal offence. Section 66J WIA91 prohibits unauthorised introduction of water into a water undertaker's supply system. Introduction of water is only permitted by the primary water undertaker itself, or by a licensee under the terms of its licence, or by another water undertaker under an agreement for a bulk water supply. Under 66J WIA91, contravention of this prohibition is a criminal offence. Both sections allow for regulations to provide further exceptions to those prohibitions. The 'Water Supply (Exceptions from Supply System Prohibitions) Regulations 2005' set out the exceptions.

As a licensee would only be allowed to use the water undertaker's supply system under the terms of its licence, it is a criminal offence for a licensee to breach any of the eligibility requirements in section 17A(3) WIA91 relating to non-household premises, the threshold requirement, or supply by only one licensee. In addition, any licensee which contravenes the eligibility requirements will face enforcement action by us under section 18 WIA91 and may incur financial penalties. Our 'Guidance on eligibility' sets out the circumstances in which a set of premises will be considered to be eligible.

2.2.2 Conditions of appointment and conditions of the Water Supply Licence

The water undertakers' Instruments of Appointment, the standard conditions of Water Supply Licences and this guidance fit together with the provisions of the WIA91 to form the statutory regime. Please refer to the pro forma Water Supply Licence and Instruments of Appointment for more information.

2.3 Other relevant documents

This guidance should be read in conjunction with the following documents:

- The pro forma Water Supply Licences;
- The standard conditions of Water Supply Licences;
- The Instruments of Appointment of Water and Water and Sewerage Undertakers in England and Wales;
- Guidance on eligibility;
- Guidance on licence application;
- The Water Supply Licence (Application) process and Regulations 2005;
- Customer transfer protocol;
- Guidance on strategic supplies;

- The Water Supply (Exceptions from Supply System Prohibitions) Regulations 2005;
- The Water Supply Licence (New Customer Exception) Regulations 2005;
- The Water Supply Licence (Modification of Standard Conditions) Order 2005; and
- Procedure for handling water supply licensing determinations (WSL determinations procedure).

3. Access application process

This chapter outlines the procedures we expect all parties to follow in negotiating and concluding access agreements. Water undertakers should deal with applications promptly and efficiently. Each case will be different but, as a general guide, this chapter outlines the stages we consider a request by a licensee should include. It also covers the minimum standards of conduct and co-operation a licensee may expect from a water undertaker in dealing with its request.

The access code must set out³⁵:

- the water undertaker's procedure for dealing with a licensee that makes an application to it under sections 66A-66C WIA91;
- any feasibility studies which the water undertaker might undertake in response to any of those possible applications (including the method of calculating of any costs associated with any such study which the water undertaker proposes to use with a view to recovering them from any such applicant); and
- the terms (including indicative prices) upon which the water undertaker will perform its duties under sections 66A-66C.

On the last requirement, the access code must include indicative access prices based on the methodology set out in chapter 6. This information will help a potential licensee to decide whether to submit an initial application.

The administration required to consider applications for wholesale and combined supplies is sufficiently different to require separate procedures. This chapter first sets out the procedures separately and then deals with common matters that apply to both procedures.

We advise all prospective parties to any proposed access agreement under sections 66A-66C WIA91 to seek their own legal representation at the earliest possible stage.

3.1 Combined supply application process

The application procedure may consist of the following stages:

- **introduction stage** – at which the combined licensee may contact the water undertaker with an initial expression of interest to negotiate terms for access;
- **initial application** – at which the water undertaker receives an outline proposal from the licensee;
- **detailed application** – at which the licensee makes a formal application to the water undertaker; and
- **detailed contract negotiations** – which may begin at the initial application stage. It is at this stage that terms are discussed and agreed or rejected.

³⁵ Condition R, paragraph 2(b).

These stages are also set out in figure 1.

DWI will be involved as appropriate at any stage of the procedure. This will be essential for combined supplies in potable water supply systems, including supplies from secondary water undertakers. For combined supply applications DWI will review the water undertaker's initial assessment report for any key water quality omissions at the start of the detailed application stage. Later in that stage, after the water undertaker's investigations, DWI will assess compliance with the relevant regulatory requirements³⁶, identify any issues arising from its guidance on common carriage³⁷ and review against industry best practice. Please refer to our Guidance on The Supply Licence (Application) process and DWI's Information letter 13/2004 for information on DWI's role in the licensing process. Our 'WSL determinations procedure' explains how we will involve DWI when we consider disputes.

We encourage potential secondary water undertakers to consult the Environment Agency informally whenever they become aware of a possible secondary supply application. In the event that the parties cannot agree on the potential secondary water undertaker's availability of water, Ofwat must consult the Environment Agency before determining a case referred to it under section 66D about the conditions under which secondary supply duties do not apply. Those conditions are contained in sections 66C(5) and (6), which are explained in chapter 2.1.2.

If a licensee has made an earlier successful application to the same water undertaker, both parties may agree to omit some of these stages. We also expect the timescales to complete the stages to reduce with experience. The timescales expressed here are intended as limits in the 'ordinary' case, but should not stop the procedure from being completed sooner where possible. We recognise some applications may take longer to process, for example, where technical information is required from other parties such as DWI or the Environment Agency. In these circumstances, the water undertaker and the licensee might agree to 'stop the clock' until the relevant information is received.

3.1.1 Combined supply stage 1 – introduction

Initial contact

Initial contact allows a licensee to express an interest in applying for an access agreement. The licensee may wish to contact the water undertaker and, if necessary, a secondary water undertaker, to discuss issues regarding their wholesale supply or combined supply application. At this point, the licensee may also wish to notify the sewerage undertaker of the possibility of the customer transferring to another supplier. Standard Licence Condition 5(8) of the Water Supply Licence (Provision of information to relevant undertakers) requires the licensee to inform any third party sewerage undertaker who provides or will provide services to any premises which are connecting to the water undertaker's supply

³⁶ The Water Supply (Water Quality) Regulations, 2000 No.3184, amended by SI 2001 No.2885, in England; Water Supply (Water Quality) Regulations 2001, SI 2001 No.3911, in Wales.

³⁷ DWI Information Letter 13/2004 'Common Carriage: Guidance On the Drinking Water Quality Aspects', 23 November 2004. On the DWI website www.dwi.gov.uk/regs/infolett/2004/info1304.shtm.

system for the first time, to enable the sewerage undertaker to start billing the new customers. Please also refer to the 'Guidance on Customer Transfer Protocol' (CTP).

The licensee should inform the water undertaker of the type of licence held and contact details (such as telephone number and postal address). The water undertaker will confirm the basic information requirements outlined in its access code. Any secondary water undertaker and the sewerage undertaker should also be able to confirm their information requirements at this stage, either directly to the licensee or via the primary water undertaker.

If the licensee requires a meeting with the primary or secondary water undertaker to discuss its request for a combined supply or secondary supply, the relevant water undertaker will arrange a meeting within ten working days of the request. At that stage, the licensee will not be expected to reveal the identity of its customers, their consumption or location.

Water undertakers and licensees should only proceed to the next stage of negotiations once the relevant parties have signed a mandatory confidentiality agreement (see section 3.5).

Apart from the confidentiality agreement, this introductory stage is not mandatory. For example, where a licensee applies for access to a water undertaker's supply system a second time, they may feel less need to discuss procedural issues. The licensee can choose to go to stage 2 (initial application) at any time.

3.1.2 Combined supply stage 2 – initial application

The application should include a signed consent form from each customer, stating that the named customer has expressed an interest in the licensee becoming its new supplier. We expect the consent forms to contain a waiver by the customer of any restrictions on disclosure by the water undertaker to the licensee of information held by the water undertaker which is necessary to disclose to the licensee for the purposes of the proposed new supply arrangements.

Once the licensee has its customer's consent, it will let the water undertaker know the type of premises to be supplied and that they are eligible to be supplied (see 'Guidance on eligibility' for more detail). If the licensee subsequently makes a successful application to the water undertaker, it is the licensee's ongoing responsibility to monitor and ensure that any premises it supplies are eligible. The licensee should also make an outline application to the water undertaker for a combined supply. This should include the details specified in the basic information requirements as agreed at the initial contact stage.

The licensee should set out in detail what it will require from the primary or secondary water undertaker in order to provide its specified level of service to its customers. For example, during the period of any access agreement the licensee will require information from the water undertaker in order to be able to advise its customers of possible changes in water quality or pressure, or, in the event of

drought, the risk of supply restrictions. The licensee and water undertaker should agree how frequently, and in how much detail such operational information is to be provided. Also, where facilities need to be constructed, for example in order to introduce water supplied by the secondary water undertaker into the primary water undertaker's supply system, the licensee should prepare, or ask the water undertaker to prepare (at the licensee's expense), an outline scheme of the proposed design and estimated costs of those facilities. It will be beneficial to the licensee to produce the initial proposal as soon as possible in order to start the access agreement process.

The sewerage undertaker should have the opportunity to comment on aspects of the proposal that could affect its ability to acquire details for billing, or that may have an impact on its other operational processes.

If the water undertaker considers that the supply is likely to constitute a strategic supply, it will discuss this with the licensee at this stage. This does not stop the water undertaker from applying to us for a strategic supply designation at a later date. Please see section 4.3 of this guidance and our separate 'Guidance on strategic supplies'.

To avoid delays in the process the initial application stage should not require too much information on potential customers' premises.

Water undertaker feedback

Both the primary and secondary water undertakers should comment on the initial applications and specify any further information they require in order to assess the initial application. The water undertaker should, as far as possible, confirm or deny the basic feasibility of the licensee's proposal.

The feedback should include preliminary price and non-price terms proposed by the water undertaker that will not be binding, but should be as accurate as possible and should provide the licensee with enough certainty to enable formulation of indicative proposals to supply prospective customers. It is therefore important for the water undertaker to base its proposals on as clear an understanding as possible of the required combined supply arrangements.

3.1.3 Combined supply stage 3 – detailed application

Water undertakers should meet the licensee at this stage to clarify any issues arising from the initial feedback and to clarify what information is required in the specific detailed application, as set out in the water undertaker's access code.

Feasibility study and testing

On the basis of a detailed application, the water undertaker should be able to carry out any feasibility studies and testing required to determine proposed terms for access. The water undertakers should approach DWI if there are any water quality issues arising from the studies. The licensee should keep DWI fully informed where

it proposes to make a combined supply in potable supply systems. Due regard should be given to the guidance given by DWI contained in its guidance on common carriage³⁸, and any updated versions of that or other relevant guidance that DWI may produce.

To assess the technical feasibility of an application for a combined supply, the primary water undertaker may require the following information (this is not an exhaustive list), as far as it is available:

- the location of each customer's premises;
- estimates of each customer's demand;
- forecasts of each customer's demand for the duration of the proposed contract or some other agreed duration;
- the location of the points of entry and exit, and hydraulic requirements;
- supply and demand data – which might include average and peak deployable outputs of the licensee's source, the supply pattern and variations in demand, details of any supply or demand management contingency arrangements for drought periods;
- water resource details – which might include the type of water resource being used, its reliability and any back-up mechanisms which may exist; a thorough risk assessment by the licensee of any proposed source, ie an assessment of exposure to pollution incidents, vandalism and other risks; evidence of abstraction licence including any associated conditions;
- water quality assessments – which might include the predicted quality of water entering the system, history of contamination (where available) of the raw water source; the level of treatment proposed, with particular attention to disinfection practices and any additional treatment requirements such as plumbosolvency control and fluoridation, details of the licensee's cryptosporidium testing process; the safeguards and procedures in the event of treatment failure; the water quality requirements of the potential customer(s); proposals for monitoring to ensure compliance with water quality regulations; and
- evidence to demonstrate the licensee's systems for informing customers of emergencies.

Secondary or sewerage undertakers may also require information from the licensee in some cases. In applications under section 66C, the primary water undertaker may ask the secondary water undertaker for information on water quality.

The licensee should keep the water company informed if any of the information supplied at the initial application stage has changed, or if further relevant information has become available. If the water undertaker considers the changes require further investigation and may require modification of the price or non-price terms previously quoted, they will inform the licensee as soon as possible and provide an estimate of the cost of those further investigations.

³⁸ DWI Information Letter 13/2004 'Common Carriage Guidance on the Drinking Water Quality Aspects', 23 November 2004. Available on the DWI website (www.dwi.gov.uk/regs/infolett/2004/info1304.shtml).

In subsequent successful access applications by the licensee, the water undertaker should review the information and inform the licensee of any additional information it requires.

Parties should agree the scope and charges for any feasibility studies or tests before they are started. The water undertaker and licensee should also agree how the results will be shared. The water undertaker is expected to provide the licensee with a copy of all findings, if the licensee requests them, and to set out the decision on feasibility and the reasoning behind it before discussing what action is needed to take an application forward.

After the water undertaker has carried out the necessary investigations in response to a detailed application and reported the results, including confirming the feasibility of the licensee's proposals (with any necessary modifications), it should make a firm offer of access (price and non-price terms) in writing to the licensee, normally within ten working days. The offer should be subject to the execution (or modification in writing) by both parties of a formal written combined access agreement, within the meaning of the WIA91.

Water undertakers should aim to complete an assessment of the application for a combined supply within 50 working days of receiving the required information from the licensee and other parties, such as DWI and Environment Agency. A combined access agreement takes longer to set up because it is likely to require feasibility studies and input from the DWI, Environment Agency and, possibly, Strategic Health Authorities or the National Assembly for Wales (NAW).

3.1.4 Combined supply stage 4 – detailed contract negotiations

Contract stage

The contract will include clauses dealing with:

- payment terms including frequency;
- arrangements for dealing with any outstanding debt; and
- a service level agreement setting out the specific support services to be provided by the water undertaker to the licensee.

It will also take account of any quality issues that both parties need to agree and accept. The contract should comply with the water undertaker's access code and with this access code guidance. A transfer date should also be included in the contract, making due allowance for completion of actions under the CTP.

Terms accepted/rejected

The terms offered by the primary and/or secondary water undertaker should be open to discussion between the parties involved for up to 15 working days. For example, the licensee may wish to change the services requested, which may affect the price or non-price terms. Where a change is requested, the water undertaker will draft a new contract or modify an existing contract to include the new terms offered. The

water undertaker should advise the licensee's customer of the intended change of supplier and expected transfer date once there is a final acceptance of a firm offer.

If the licensee accepts the terms (subject to execution by both parties of a formal written contract), the water undertaker will send the licensee a signed contract, normally within ten working days. The licensee should sign the contract and return it within ten working days.

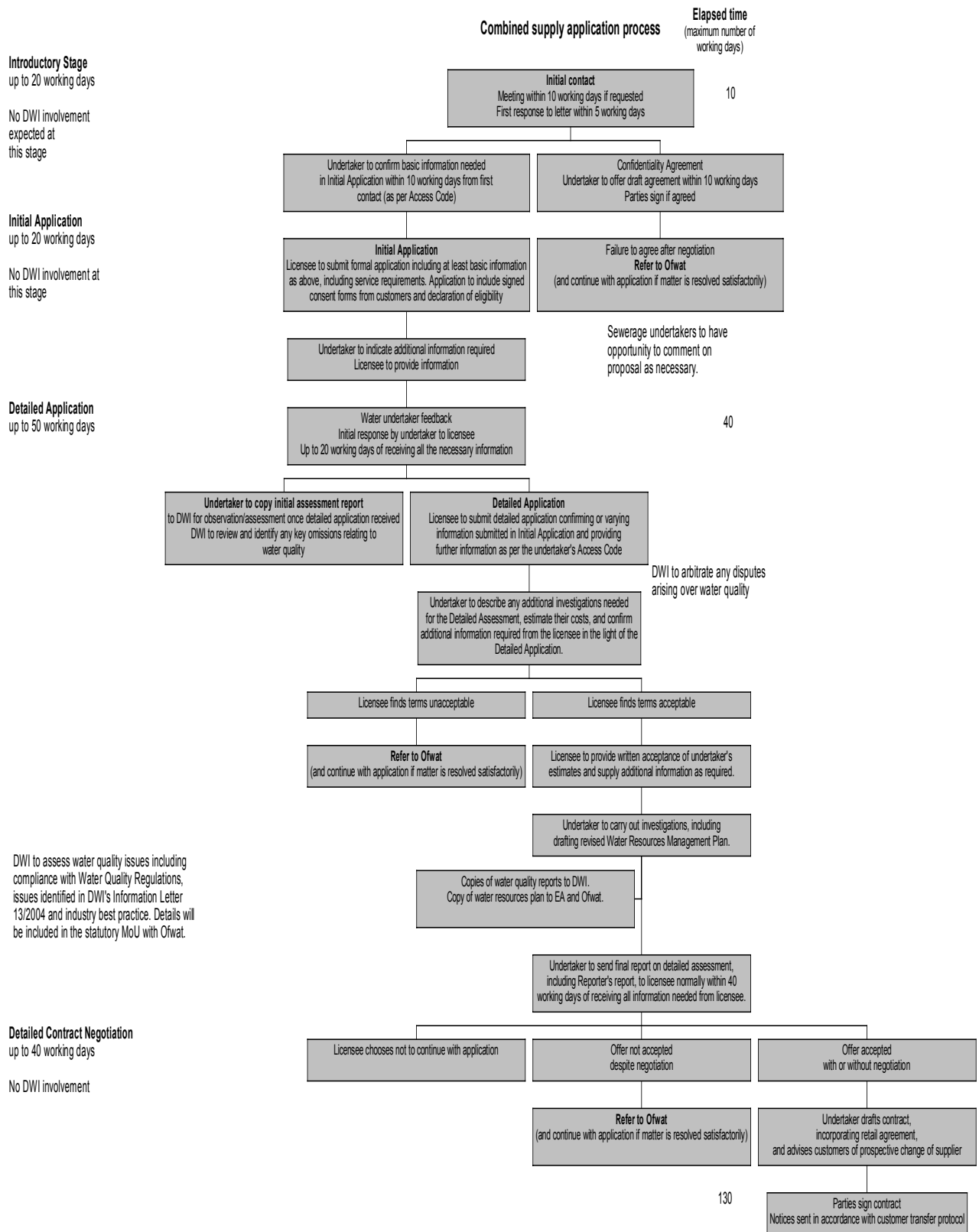
If, despite negotiations, the parties are unable to agree the period, terms and conditions specified in section 66D(2) WIA91, the licensee may refer the matter to us for determination.

We expect water undertakers and licensees ordinarily to complete detailed contract negotiations within 40 working days.

In the case of wholesale supply by a secondary water undertaker under a combined licence, the time taken to respond will reflect the need for liaison with the primary water undertaker over water transfer arrangements. We expect that this will normally take ten working days, in addition to the response time set out above. Timescales for liaison between primary and secondary water undertakers should be included in the time it takes for the primary water undertaker to provide a written response to the licensee to its application.

These stages are shown in figure 1 below.

Figure 1: Combined supply application process



3.2 Wholesale water supply by primary water undertaker – application process

Supplies made by retail licensees are not ordinarily expected to involve changes to physical supply arrangements. Because of this, the application process is mainly concerned with administrative changes and can usually be concluded with fewer stages and in a shorter time than combined supply applications.

It is likely that a single licensee will have more than one customer within a water undertaker's area. To avoid legal and administrative duplication, we envisage that many provisions in the access agreements will be common so a licensee will request a master access agreement from the water undertaker. This should cover all the main terms and conditions of wholesale supply arrangements between the parties, except for customer- or site-specific conditions. Each time a new wholesale supply application is made, the customer- and site-specific details would be added to the master agreement by way of an additional contract schedule or by cross-referencing to provisions in the master access agreement. In some circumstances this arrangement could also apply to access agreements for combined licensees.

The application process for a wholesale supply by a primary water undertaker ordinarily comprises two main stages:

- First, the licensee and water undertaker should agree a master agreement incorporating the main contract terms and general conditions that will apply to individual wholesale access agreements between them.
- Second, for each customer, the licensee and water undertaker should exchange the information and data necessary to complete the schedule to the master agreement, containing the period, terms and conditions relating to the specific customer and premises.

The sewerage undertaker should have the opportunity to comment on aspects of the proposal that could affect its ability to acquire details for billing, or that may impact on its other operational processes.

3.2.1 Common provisions for wholesale supply master contracts agreement process

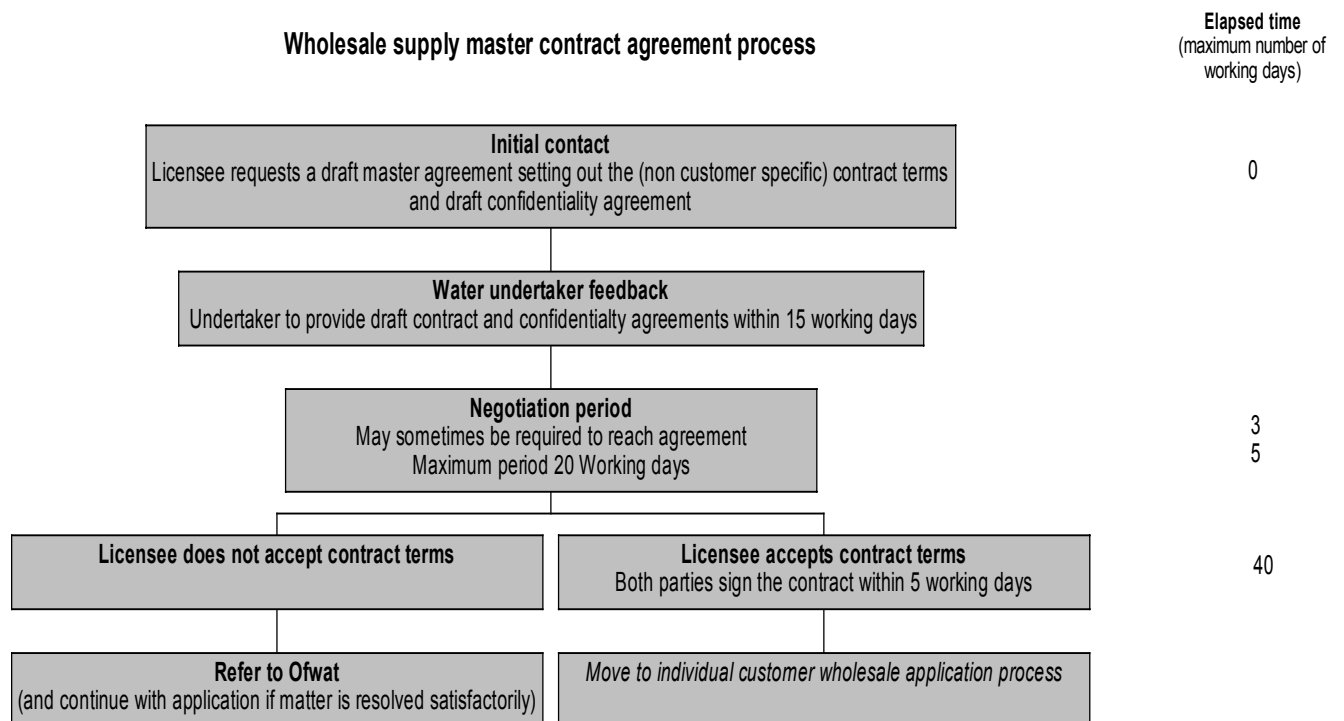
The wholesale supply master contract agreement process should consist of the following stages.

- **Initial contact** – the licensee contacts the water undertaker to request a draft agreement and confidentiality agreement and to discuss issues regarding retail supply to the premises of the licensee's customer within the water undertaker's area. The licensee should notify the sewerage undertaker at this point of the possibility of the customer transferring to another supplier. Standard Licence Condition 5 of the Water Supply Licence requires licensees to inform sewerage undertakers of any premises connecting to the distribution system for the first time, to enable it to start billing the new customers.

The sewerage undertaker should also be able to confirm their information requirements at this stage. Alternatively, the water undertaker may request information on their behalf.

- **Provision of draft documents** – the water undertaker would normally be expected to respond to this request and provide the documents to the licensee within 15 working days of the request.
- **Negotiation** – a period of discussion and negotiation may be required to reach agreement on contract or confidentiality issues. It is expected that ordinarily these discussions should be concluded within 20 working days of receipt by the licensee of the draft documents.
- **Acceptance** – both parties sign the contract and the process moves to the wholesale application process described in 3.2.2 below.

Figure 2: Wholesale supply master contract agreement process



3.2.2 Preparation of individual contract schedules for wholesale supplies

The wholesale application process for each customer, following the agreement of a master agreement will consist of the following main stages, which are shown in figure 3. Water undertakers and licensees should agree how the information should be provided.

- **Initial application** – the licensee submits to the relevant water undertaker sufficient site-specific terms or customer-specific information to enable the water

undertaker to prepare a draft contract schedule relating to that customer. This information should include the customer's consent to expressing an interest in switching supplier and a declaration that its customer's premises are eligible.

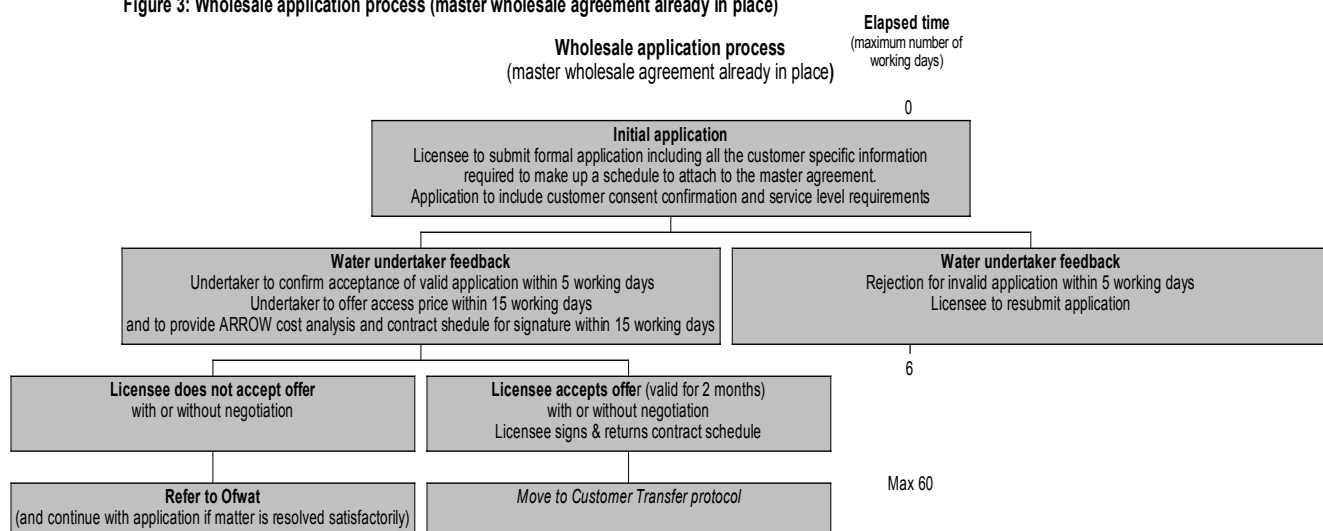
The sewerage undertaker should have the opportunity to comment on aspects of the proposal that could affect its ability to acquire details for billing, or that may impact on its other operational processes.

- **Water undertaker's acceptance and offer** – the water undertaker determines whether or not the application is valid. The company should confirm to the licensee within five working days if it accepts the application as valid. The licensee should be given an access price within 15 working days, with a schedule that shows in detail how it has been calculated. The draft contract schedule should also be provided to the licensee, signed by the water undertaker.
- **Licensee's acceptance** – the licensee may accept the offer, with or without further negotiation, in which case it should sign and return the contract schedule. Alternatively, if there is no agreement, the licensee may refer the matters in dispute to us for determination under section 66D(2)(b) WIA91. Once an agreement has been made, or the licensee has accepted our determination, the process moves to the CTP.

The schedules to the master agreement should contain the:

- customer's name;
- customer's premises details;
- unique premises reference;
- expected start date for the supply;
- supply duration;
- estimated annual consumption;
- usage proportion relating to non-household;
- special service level requirements; and
- access price, expressed as a discount in either pence per cubic metre or a fixed charge for each year of the duration, and indicating the relevant price base.

Figure 3: Wholesale application process (master wholesale agreement already in place)



3.3 Information requirements for combined supply and wholesale applications

Access codes should set out clearly the information required at each stage of the application process. Water undertakers must only ask for the information needed to progress the application at each stage, but should not be expected to process an incomplete application. Water undertakers must set out the specific information requirements at the initial contact stage and explain, if necessary, why it is needed. Water undertakers should justify instances where they require information that is different from the requirements set out in their access codes. Condition R (9) requires the water undertaker to provide a licensee with information it reasonably needs under certain circumstances.

To make the process easier, licensees need to provide a broad outline of their access proposals at the initial contact stage.

All parties should minimise delays in the application process. These are more likely if an application is incomplete. The licensee is responsible for submitting satisfactory information, although the water undertaker should help the licensee by notifying it, where reasonable and practicable, of missing information.

A licensee should not be asked to re-submit current information it has already provided about non-customer specific aspects of an application. This applies also to repeat applications to the same water undertaker, although it may require updated information if circumstances have changed. The amount and type of updated information that the water undertaker requires will depend on the time that has passed since the submission of the previous application.

During the CTP licensees may need to re-submit customer information they have already provided during the access application process.

3.4 Timescales

Water undertakers' timescales for each stage of the application process should be set out in accordance with this guidance. Timescales should be adhered to, although we recognise that some technical investigations may take longer than the timescales prescribed.

A staged approach to processing applications should not be used as an opportunity to delay the conclusion of access agreements, and we expect water undertakers and licensees to be able to justify any delays in the process.

We expect timescales to reduce with experience. The timescales expressed here should not prevent the various stages from being completed more quickly if possible.

3.5 Confidentiality of information exchanged between parties and Standard Licence Condition 2 (Conduct of Licensee)

Condition R and Standard Licence Condition 2 impose an obligation on the water undertaker and licensee not to use or disclose information inappropriately. Condition R also requires the water undertaker to ensure that legally-enforceable terms exist about the confidentiality of information. Licensees and water undertakers must agree a pre-contract confidentiality agreement at the start of their negotiations. The purpose of this is to ensure that neither party discloses without consent or misuses information received. They should also agree confidentiality terms in individual access agreements. Water undertakers should publish in their access codes the confidentiality provision that they will require licensees to accept in any contract for the introduction of water or for wholesale water supply.

Any confidentiality agreement should not prohibit the water undertaker from communicating with the sewerage undertaker.

Water undertakers should take account of their obligations under the Environmental Information Regulations 2004, which came into force on 1 January 2005, when entering into confidentiality agreements.

A breach of a confidentiality obligation by any party could give rise to legal proceedings. In addition, we can enforce Condition R and Standard Licence Condition 2.

3.6 Reasons for objection to the licensee's proposal

Water undertakers, licensees (in the case of a customer transferring from one licensee to another), DWI, secondary water undertakers and other relevant parties may discover during any stage of the application process that an application can not be progressed. As well as statutory conditions in sections 66A-66C WIA91 (see section 2.1.2), the following list gives examples of the types of objection that might

arise during the application process. (See the CTP for details on customer transfer objections between water suppliers³⁹.)

- The incoming supplier has provided insufficient or incorrect details to the relevant parties to allow the customer to transfer.
- Refusal by the licensee to provide necessary information.
- The water undertaker or earlier licensee considers that the customer's premises are not eligible (the licensee should declare eligibility at the initial application stage).
- An application by another licensee to supply the customer has been accepted.
- The licensee's proposals are impracticable, for example unfeasible hydraulic conditions.
- Unacceptable water quality implications.
- Concerns over source risk assessment.
- National security reasons.

The person making the objection should give the applicant full reasons for the objection in writing, as soon as possible after that person becomes aware of a problem. We expect the water undertaker to comply with any requests for a meeting to discuss the objections and for parties to seek to negotiate solutions to enable the application to progress.

If the water undertaker is the primary water undertaker, the licensee may request details of any outstanding debt owed by customers in relation to the premises named in the application. We expect the parties to make appropriate arrangements for the repayment of any outstanding water debt before the final change of supplier takes place under the CTP. If a customer has outstanding debt and no arrangement has been made for its repayment or the assignment of the debt to the incoming supplier, it is possible to raise an objection as part of the CTP. Standard Licence Condition 6 (Customer transfer protocol) and Condition S define debt as charges by the old supplier for a supply of water to customer's premises, which has not been paid for 30 days or more after that supplier served notice demanding payment. As the debt position or negotiations about its payment might change throughout the application process, the correct point to check the debt position is immediately before the transfer to the new supplier is due to take place. Debt to the sewerage undertaker and other debts should not be reasons for objection to a customer transfer. It is for the licensee to decide whether they wish to take on a customer, having considered its credit record.

If an objection is made to an access application, the licensee may ask us for a determination where agreement cannot be reached. Please see our 'WSL determinations procedure' on how we will handle disputes.

³⁹ Water suppliers refers to both water undertakers and water supply licensees.

3.7 Application fees

The licensee must pay the water undertaker's costs for processing an application, whether or not it results in an agreement. If an application is withdrawn during the application process, the licensee should only be required to pay the costs incurred to that point (including any unavoidable future costs that the application may have triggered). As far as possible, the fees to be charged by the water undertaker for processing an application should be set out in its access code.

It is likely that the costs incurred by a water undertaker in processing an application for a combined supply will be greater than the costs incurred in processing one for a wholesale supply. The water undertaker's charges should reflect that difference.

A water undertaker should not charge for providing its access code or clarifying its policy and information requirements.

Other parties involved in the application process, such as secondary water undertakers and sewerage undertakers, should also be entitled to recover their costs. A secondary water undertaker should include provision in its agreement with the licensee to recover those costs from the licensee. We expect the costs incurred by sewerage undertakers to be low and for these to be recovered separately from the access agreement between the licensee and primary or secondary water undertaker.

4. General issues

4.1 Non-discrimination

Water undertakers must not unduly discriminate when granting access, which means that like situations must be treated alike and that any differential treatment between (for example) licensees must be capable of being objectively justified on legitimate grounds.

Condition R requires that water undertakers do not show undue preference to, or undue discrimination against, actual or potential customers or any actual or potential licensees. This will prevent unwarranted distinctions between:

- A water undertaker's retail activities and licensees.
- Different licensees (or their customers).
- Customers connected to the water undertaker's network, whether or not they are supplied by a licensee or the water undertaker. A water undertaker cannot treat a licensee's customer any differently from its own customers (unless specifically agreed as part of the access agreement). For example, unless specifically agreed as part of the access agreement, if there is a drought order or a hosepipe ban, the water undertaker cannot require the licensee's customers to limit their water use in precedence or preference to limiting water use by its own customers.

These duties do not mean that all licensees must be charged the same price for access in all cases. The charges payable by a licensee to a water undertaker under an access agreement must be fixed in accordance with the costs principle and the pricing chapter of this guidance (see chapter 6). Various factors will influence the actual price (including point of entry and exit, the timing of entry and the relevant charge for the licensee's customer). Charges will be case-specific. Water undertakers must, however, publish indicative access prices with their access codes.

4.2 Terms and conditions of access agreement

The water undertaker and the licensee need to agree the contractual terms and conditions of an access agreement (as explained in chapter 3). They should not ordinarily seek to involve us in the process of negotiating those terms and conditions. It is for them (together with legal advisers) to agree appropriate contractual terms, having regard to the costs principle and to the duties on a water undertaker not to show undue preference to, or undue discrimination against, any actual or potential licensee or customer. However, this guidance suggests a non-exhaustive list of contract terms, based on recognised standard contract terms. The standard terms and conditions of an access agreement might include the following:

- purpose of the agreement;
- payment terms, including action in event of non-payment;
- credit provisions/limits;

- financial guarantees/level of insurance cover;
- contract length;
- variation;
- termination/default/breach;
- dispute resolution and proper law (ie governed by law of England and Wales);
- force majeure;
- confidentiality agreement;
- third party rights;
- communication and notices;
- customer contact and customer service;
- health and safety issues;
- emergency measures and procedures;
- strategic supply status;
- best endeavours;
- assignment;
- sub-contracting;
- liabilities;
- compensation;
- material changes; and
- for combined supply contracts, water quality monitoring and contingency procedures.

The access agreement should bind both parties to the terms and conditions specified in the water undertaker's access code. This should specify standard terms and conditions, but with the flexibility that the water undertaker and licensee can agree different terms if required for particular circumstances. The access code should also specify DWI's role in dispute resolution.

4.3 Strategic supplies

Water undertakers have statutory duties (sections 52 and 55 WIA91) to supply water to existing and new customers for domestic and non-domestic purposes. These duties will be relevant where a licensee ceases to supply a customer.

Sections 66G and 66H WIA91 allow us to designate as strategic one or more introductions of certain water supplies by a licensee into a water undertaker's supply system. The trigger for designation as a strategic or collective strategic supply is that, without the introductions being made, there is a substantial risk that the water undertaker would be unable to maintain supplies to its own customers with water for domestic and non-domestic purposes as well as supplying the licensee's customers with water for domestic purposes.⁴⁰

While an application for a strategic supply designation can be made at any time, the water undertaker and the licensee should discuss in the initial stage of each application for access whether (and when) a supply might be strategic as this may affect the access charge. There should also be provision within the access

⁴⁰ See sections 66G(10), 66H(10) WIA91.

agreement for discussion of strategic supply status at any time during the life of the agreement.

Designation of a licensee's water supply as strategic means that the licensee would become subject to special administration procedures (sections 23-26 WIA91). Standard Licence Condition 14 (Special Administration – combined licences) of the Water Supply Licence requires that a licensee shall at all times ensure that, if a special administration order were made in relation to it, the licensee would have available to it sufficient rights and assets to enable the special administrator to manage the affairs, business and property of the licensee so as to ensure that the purpose of that order could be achieved.

Supplies to eligible customers of a retail licensee cannot be taken into consideration when we are deciding whether or not to designate an introduction by combined licensee in the same water resource zone. Customers of a licensee supplying only in accordance with its retail authorisation (a 'retail licensee') need to be aware of the risk that their supplies might not be protected by the strategic supply designation process if a combined licensee is unable to introduce water because it has become insolvent. However, if there was a water shortage in a particular zone, the relevant water undertaker would need to comply with its obligation not to discriminate between its own customers and the retail licensee and its customer(s). If the water undertaker did cut off supplies to the retail licensee, then the interim supply obligations in section 63AC WIA91 will apply (subject to the conditions set down in that section).

Please see our non-statutory guidance on how we intend to address the issue of designation of supplies as strategic.

4.4 Customer protection

When a licensee is granted access to the water undertaker's supply system, the water undertaker retains operational control of that supply system. The licensee will usually be responsible for customer services to its customer unless it agrees otherwise with the water undertaker. The access agreement needs to set out the services to be provided by the licensee and those to be provided by the water undertaker. Licensees are not customers of water undertakers for the purposes of the Government's Guaranteed Standards Scheme (GSS)⁴¹ and customers of licensees do not have the benefit of the GSS.

The access agreement should specify all arrangements for customer service that have been agreed by the parties. In some cases, a licensee may require a level and standard of service to its customer that is different from the service provided by the water undertaker to that customer. For example, some water undertakers operate compensation schemes that go further than the GSS. If the licensee is willing to pay a different access charge for this, then this must be permitted.

⁴¹ A consequential amendment will be made to the relevant Statutory Instrument, changing the definition of 'customer' to exclude licensees.

Licensees and their customers should agree between themselves the standards and levels of service (including compensation for failure) to be provided to the customer.

The access charge should reflect the arrangements for customer service and responsibility allocated between the water undertaker and the licensee. Where the access agreement provides that a water undertaker shall continue to provide certain services to a licensee's customers, that should be taken into account appropriately in the access charge.

Please see section 5.4 for more information on compensation.

4.5 Customer contact – queries and complaints

Customers require a clear point of contact at all times for emergencies, general enquiries and complaints. The customer's supplier is responsible for communicating with its customers. However, in the case of an emergency, where there may be health and safety issues or risk to supply system integrity, then the water undertaker must be able to contact the licensee's customer (and vice versa). Also, some of the water undertaker's activities might cover licensees' customers (for example, a water undertaker might distribute boil water notices to all customers in its area, including licensees' customers). Because of this, a licensee must provide customer contact information to the water undertaker as part of the ongoing data transfer. This is provided for in standard conditions of Water Supply Licences⁴² in general terms to ensure that a minimum standard is adhered to. The details in any particular case must be set out in the access agreement and will also be enforceable under the licence conditions.

Under the standard conditions of Water Supply Licences, the licensee must inform the water undertaker of relevant details if customers with particular needs⁴³ Standard Licence Condition 5 and Condition R, occupy or are likely to occupy any premises that the licensee supplies. This might include, for example, details of those living in eligible premises who require water for medical purposes. Similarly, under Condition R, the water undertaker must inform the licensee of relevant details if it is aware that a customer with particular needs occupies, or is likely to occupy any premises which the licensee is proposing to supply. Please see Condition R and standard licence Condition 5. However, the service of providing information to customers can itself be outsourced by the licensee, including outsourcing to the water undertaker.

The licensee must ensure that the customer is aware of any instances when the water undertaker should be the point of contact (if any, depending on what the licensee and water undertaker have agreed between themselves). The licensee must also ensure that there are appropriate provisions in place to pass on queries between a customer and the water undertaker if necessary. Some business customers may need day-to-day contact with the water undertaker on water quality issues that affect the running of their business, for example an electronics factory might need daily information on the conductivity of water supplied.

⁴² See paragraph 5 of the Standard conditions of water supply licences.

⁴³ See Standard Licence Condition 5.

Sewerage undertakers and/or billing agents will generally retain their existing relationships with their sewerage customers. However, they may agree (with the customer's involvement) a commercial arrangement for the licensee to conduct some or all of the contact on behalf of the sewerage undertaker.

The access agreement should set out how complaints are allocated and transferred, between the licensee and the water undertaker. The role and responsibilities of both parties in dealing with complaints from the licensee's customers must be made clear. Customers need to understand the relationship between the licensee and the water undertaker and how any investigation will be handled. The licensee and the water undertaker could, for example, agree text explaining their relationship to accompany the contact details sent out with bills to the licensee's customers.

A licensee must ensure the safe operation of the network and must supply a relevant water undertaker with information required for the certain defined purposes. Standard Condition 5 of the Water Supply Licence and Condition of Appointment R set out the licensee's and the water undertaker's duties to provide information to each other on issues such as water quality, water pressure, continuity of supply, matters affecting the water undertaker's supply system and customers with particular needs.

4.6 Customer transfer and switching

Water undertakers and licensees must abide by the provisions of the CTP as part of compliance with their conditions of appointment⁴⁴ and licence conditions⁴⁵ respectively.

4.7 Billing and debt collection

The licensee is responsible for billing its customers. However, a licensee may ask the water undertaker to provide billing services on its behalf. The process for establishing the price for that service is set out in chapter 6 of this guidance.

Following a transfer between a water undertaker and a licensee or between licensees, the customer will receive a final invoice from the old supplier showing the final reading of consumption at the point at which the change of supplier took place.

A customer may wish to switch to another water supplier at a time when it still owes money to the old supplier. The CTP includes provisions that, if certain conditions are met, the old supplier may suspend the transfer of the water supply to such customers until it is satisfied that the debt will be paid. In these circumstances it will be up to the new supplier to decide how (if at all) that debt should be recovered from the customer.

⁴⁴ Condition S, paragraph 2.

⁴⁵ Paragraph 6(2) of the Standard conditions of Water Supply Licences.

4.8 Termination of supply

Where a water undertaker makes a supply of water to premises under section 52 WIA91 (domestic purposes), or section 55 WIA91 (non-domestic purposes), the water undertaker's powers to disconnect or cut off the supply of water to premises are set out in:

- section 60 WIA91 (disconnection for the purpose of carrying out necessary works where it is reasonable to do so);
- section 61 WIA91 (disconnection for non-payment of charges by the occupier of certain premises);
- section 62 WIA91 (disconnection at the request of the 'consumer'⁴⁶); and
- in certain circumstances, section 75 WIA91 (disconnection to prevent contamination of waste).

Sections 52 and 55 are expressly subject to these disconnection rights.

A water undertaker's statutory powers to disconnect or cut off do not, however, apply to supplies of water made under access agreements. This is because the supplies in question are made under sections 66A-66C WIA91. These sections do not impose duties on water undertakers to provide supplies of water to *premises*. Rather, as a matter of law, they impose duties on water undertakers to provide a supply of water to licensees and to permit licensees to introduce water into their supply systems, to enable the *licensees* to provide a supply of water to their customers at eligible premises. Section 2.1.2 explains the conditions in sections 66A-66C which, if satisfied, prevent the supply duties from arising.

There are three situations in which the termination of supplies made under sections 66A-66C WIA91 might arise:

- First, the licensee pays the water undertaker but the customer does not pay the licensee;
- Second, the licensee does not pay the water undertaker but the customer has paid the licensee; and
- Third, the licensee does not pay the water undertaker but the customer has not paid the licensee.

In the first situation, the agreement between the licensee and its customer should set out how the licensee will deal with non-payment. The agreements between the water undertaker and the licensee (and, to the extent necessary, between the licensee and its customer) should set out the circumstances in which a water undertaker may cease to supply a licensee's customer at the licensee's request. The access agreement and customer agreement may contain a term under which the licensee will be entitled to terminate its supply agreement with the water undertaker, thereby ceasing its supply to the premises of the licensee's customer. If this happens, the interim supply duty provisions (section 63AC WIA91) seek to

⁴⁶ A 'consumer' is defined as "a person who is for the time being the person on whom liability to pay charges to the undertaker in respect of that supply of water would fall": section 93 WIA91.

ensure that the customer's premises will continue to receive a supply of water for a short period from the water undertaker. But, this interim supply duty does allow the water undertaker to discontinue the supply.

In the second and third situations, the period for which and the terms and conditions on which the water undertaker is to carry out any of its duties under sections 66A-66C are those agreed between the parties or determined by us. If, for example, the access agreement provides that the water undertaker may terminate the agreement in the event of non-payment by the licensee, and the water undertaker does so, then the water undertaker's duty to supply the licensee ceases at that time.

Water undertakers should set out in their access codes the circumstances in which they will cease to supply the licensee, and it may be worthwhile differentiating between the two situations. They may also include reasons other than non-payment. Water undertakers and licensees should negotiate appropriate payment methods (including timing, frequency and method of payment) as part of access agreements. Water undertakers should detail the options available to licensees in their access code.

Section 63AC WIA91 provides that if a licensee ceases to supply any premises with water, and the owner or occupier of the premises has not notified the water undertaker that he has made arrangements for the continuation of the supply of water to the premises or that he intends any supply of water to the premises to cease, the water undertaker is under an interim duty to continue the supply of water to those premises. The duty applies until a supply is made under section 52 or 55 WIA91 or the licensee serves a notice on the customer⁴⁷ that the supply is to be discontinued. This notice must not be served until at least three months after the day on which the supply by the licensee ceased.

The interim supply duty does not apply if it would put at risk the water undertaker's ability to meet its existing supply obligations and its probable future obligations to supply water for domestic purposes or require unreasonable expenditure to do so. Water undertakers should not maintain full capacity in their system in case they are required to provide an interim supply. If the water undertaker considers that it might not, in the event that it was required to do so, be able to meet the requirements of the interim supply duty it can apply for a strategic supply designation.

Water undertakers and licensees will need to consider whether to have other provisions in access agreements to cover discontinuation of supply for works (see chapter 5.4 below), contamination and waste.

⁴⁷ Strictly, the owner or occupier of the premises.

5. Operational issues

Water undertakers' access codes should provide enough information to allow licensees to assess the operational viability of its proposals and give it a broad indication as to whether its proposals for an access agreement are viable. It is important that water undertakers' operational standards are transparent to allow us, licensees and DWI to assess whether an operational standard is more or less stringent than it needs to be.

5.1 Water quality and sampling

In general, water undertakers treat their water to a higher standard than specified in the relevant water quality Water Supply (Water Quality) Regulations⁴⁸ to allow for variations in water quality in the distribution system and to ensure that the water is compliant at the point of supply. Combined licensees must ensure that the water they introduce into the water undertaker's supply system is compatible with the water already in supply. This includes factors such as taste, smell, appearance and hardness. Please refer to DWI's guidance on common carriage⁴⁹ for information on compatibility. Licensees' water must also comply with the water undertaker's procedures for plumbosolvency control as appropriate.

If the quality of water in distribution changes significantly after a scheme goes 'live', licensees must change their inputs to ensure compatibility. The DWI considers that in most cases it should be possible for the licensee and the water undertaker to agree a solution to water quality issues without its involvement. The licensee should bear any associated costs. The water undertaker should tell the licensee during the application processes about known forthcoming changes to operational standards that might affect compatibility. If the water undertaker does not communicate that information properly and as a result the licensee incurs unnecessary costs, the water undertaker is expected to bear those costs.

If a water undertaker is required under section 87(1) WIA91 by a strategic health authority or the NAW to add fluoride to its potable water supplies then it should require any combined licensee to fluoridate water introduced into the water undertaker's supply system. The licensee should obtain an indemnity (if needed) under section 90 WIA91 from the appropriate authority.

A water undertaker must reserve the right to suspend, without prior notice, the introduction of water into its supply system if it has reasonable cause to suspect that continued introduction would put it at risk of supplying unwholesome⁵⁰ water or at the risk of committing an offence under section 70 WIA91 (that is, the offence of supplying water unfit for human consumption).

⁴⁸ Water Supply (Water Quality) Regulations 2000, SI 2000 no 3184 amended by SI 2001 no 2885, in England; Water Supply (Water Quality) Regulations 2001, SI 2001 no 3911, in Wales.

⁴⁹ DWI Information Letter 13/2004 'Common Carriage Guidance on the Drinking Water Quality Aspects', 23 November 2004. Available on the DWI website (www.dwi.gov.uk/regs/infolett/2004/info1304.shtm)

⁵⁰ See regulation 4 of the Water Quality Regulations for the meaning of wholesomeness.

The licensee is required to notify the water undertaker immediately if there is a risk that continued introduction of its water may result in a breach of the standards at the point of supply. This is also required by the standard licence conditions.

Water undertakers and licensees will have regard to DWI's guidance on common carriage and the maintenance of drinking water quality and any updates that DWI might produce. They should seek the advice of DWI if they need further clarification of the guidance in certain circumstances. They should also comply with DWI's advice in resolving disputes between themselves. We will seek advice from DWI as appropriate when disputes are referred to us for determination.

A water undertaker should permit a licensee to carry out its own monitoring and testing activities, as long as it uses a laboratory that meets the requirements set out in the Regulations. A licensee must, in compliance with the Standard Conditions of Water Supply Licences,⁵¹ provide information to water undertakers regarding all reasonable sampling information requests where this relates to a water undertaker fulfilling its statutory duty to supply wholesome water. A water undertaker may provide sampling and monitoring services to a licensee for a reasonable charge, calculated on a commercial basis.

Any organisation seeking a combined licence to introduce water into a water undertaker's supply system must satisfy DWI during the licence application process that it is suitable to do so. The conditions of the licence will prohibit the licensee from introducing water into the supply system until it can demonstrate to DWI that it is meeting the Regulations.⁵² The conditions of the licence will also require ongoing compliance with the Regulations and other relevant water quality provisions.

DWI considers that, as long as this guidance is followed, the introduction of water by a licensee can operate without impairment to water quality. It believes that trial periods should not be used in any combined supply situation. We accept this view. Water undertakers should use network modelling to assess the potential effects of a proposed combined supply on water quality and should follow DWI's guidance.

If, after the network modelling exercise, the parties are still in doubt about the effect of a proposed combined supply on water quality issues, they should consult DWI, who will review the available evidence and assess the implications.

Some customers have business processes that are particularly sensitive to changes in the source of the water they receive or to significant fluctuations in water quality, for example in hardness or conductivity. Licensees and water undertakers will need to take such matters into account when agreeing a combined supply.

⁵¹ Standard Conditions of Water Supply Licences, paragraph 5.

⁵² Standard Conditions of Water Supply Licences, paragraph 13.

5.2 Supply system management and control

The water undertaker retains responsibility for the operation, maintenance and control of its supply system in its Area of Appointment. To comply with the standard conditions of its Water Supply Licence, a licensee must co-operate with the water undertaker in its role as supply system operator. A licensee must carry out the activities authorised by its licence in a manner which does not actually or potentially jeopardise the proper, efficient and economical performance by any water undertaker of its functions,⁵³ including the water undertaker's management of its supply system.

The licensee should comply with the water undertaker's monitoring requirements to ensure that the safe and efficient management of the supply system is maintained. It may be appropriate for the parties to link their telemetry to enable the water undertaker to monitor on the licensee's behalf. Where this is not appropriate the licensee should provide information as set out in the access code, which might fall into the following categories for combined supplies:

- daily monitoring information;
- planned maintenance/interruption arrangements;
- ongoing system balancing;
- emergencies and incident management;
- metering information;
- water quality data as appropriate, including contamination issues;
- levels of service feedback from the customer; and
- notice of changes in operation or water quality at the licensee's plant and any failures or out of specification performance.

The access agreement should set out the specific information flows required in each case.

5.2.1 Maps and plans

It is important for the licensee and the water undertaker share relevant maps and plans, normally at the detailed application stage (subject to reasonable and objectively justifiable conditions about security and copyright). The parties should share information from supply system modelling, for example, to clarify the negotiation of connection costs, such as mains reinforcement. Operational practices such as regular flushing programmes should be agreed. It will be important to highlight known areas at risk of discolouration incidents owing to flow or pressure fluctuations during routine and non-routine use of the system, for example, firefighting.

⁵³ Standard Conditions of Water Supply Licences, paragraph 2.

5.2.2 Firefighting

Arrangements for the provision of water for firefighting and fire hydrant flushing should be made clear in access terms, and allow for appropriate adjustments in the demand balance. Maintaining pressure in the system during such incidents is a consideration where the licensee's source has a significant impact on the supply system.

If a licensee's customer makes a special request for a fire hydrant near its premises under section 58 WIA91, the customer will have to pay for this in the ordinary way.

5.2.3 Unauthorised use of water

Potential unauthorised standpipe use (and theft of water) should be addressed, in terms of both water usage and of possible discolouration and safety hazards. The water undertaker should indicate to the licensee its experience of the usual local extent of the problem.

5.3 Drought and resource planning

Water undertakers remain solely responsible for preparing and maintaining drought and water resources management plans. Under sections 37C and 39C WIA91, a licensee is under a duty to provide the water undertaker with such information as required for the purposes of preparing or revising its drought and water resources management plan. To comply with its licence conditions⁵⁴ and with those sections a licensee must co-operate with the water undertaker in its duties to produce such plans.

As part of their detailed applications (stage 3), licensees must provide a thorough outage risk assessment of any proposed source and the criteria by which any risks are assessed, such as an assessment of exposure to pollution incidents, vandalism and other risks. We would expect the information requirements for that assessment to be similar to those the water undertaker uses for its own water sources. Access terms should set out the information requirements for the outage risk assessment and water undertakers should provide further clarification where necessary. The abstraction licensing process for a new source includes the requirements for providing information to the Environment Agency on the environmental impact of the proposed abstraction and on the prospective water demand (as part of the test of 'reasonable requirement') under the licence. Water undertakers' water resources management plans describe the risk assessment criteria they use when developing a new source.

Risk assessment of water resource reliability is also important. Access terms should set out the information required in order to carry out a risk assessment. Licensees must comply with reasonable requests for information that are necessary for the water undertaker to fulfil its statutory duty to supply. The information required should

⁵⁴ Standard Conditions of Water Supply Licences, paragraphs 2, 4 and 5.

be similar to that used by water undertakers in assessing the yield⁵⁵ of their own resources.

Water undertakers also retain responsibility for drought planning and the ability to apply for drought orders and hosepipe bans restricting non-essential use. However, it will be for both parties to agree whether their customers within the same class of customer will be subject to the same risk of interruptions to supply. This is subject to the non-discrimination requirements set out in section 4.1 above. Standard Licence Condition 4 (Emergencies and drought) requires the licensee to comply with reasonable instructions from a relevant water undertaker in relation to matters specified in statutory drought plans which are not the subject of a drought order or drought permit for a number of specified purposes.⁵⁶ A licensee can refer to us for determination any question as to the reasonableness of any such instructions given by the water undertaker. Paragraph 4 of the Standard Conditions of Water Supply Licences also requires the licensee to comply with any instructions given to it by a relevant water undertaker during any emergency, for the same specified purposes.

Licensees should notify water undertakers promptly of any changes to their demand and resources plans.

Licensees' negotiations with their customers, and subsequently with water undertakers as part of the access application, should cover the degree of resource reliability and drought protection required. It should be clear to the customer how they will be treated in such circumstances compared with other water customers in the locality.

5.4 Maintenance and serviceability of assets

It is essential that the access agreement should cover the enabling of maintenance of the licensee's assets. This is so that the water undertaker can be assured those assets meet the optimum standards of maintenance necessary to maintain a suitably reliable supply, and to enable the water undertaker to set out in the access code how planned and unplanned supply interruptions or a reduced service will be managed between the parties when the need arises.

The water undertaker may not insist on the licensee providing a bond to cover the cost of repairs. That would be overly restrictive on licensees as the maintenance of assets and repairs are activities that are necessary regardless of the number of access agreements in place or whether the licensee's introduction has been designated as strategic. The parties should:

- identify the relevant assets required for access;
- agree the performance standards those assets must meet; and

⁵⁵ 'Yield' normally means deployable output, which is defined as the output for specified conditions and demands of a commissioned source or group of sources as constrained by: licensed quantities; water quality; environment (constraints in licence); treatment; raw water mains and/or aqueducts; pumping plant; transfer and/or output main; well construction; aquifer properties.

⁵⁶ See paragraph 4(2)(b).

- agree arrangements for regular review of those assets, to ensure they are maintained properly.

In this way, water undertakers are able to ensure the integrity of the supply system as a whole. In addition, licensees are required by the Standard Licence Condition 2(3)(b) to have sufficient product and public liability insurance for the activities authorised by its licence; that insurance should cover instances in which the licensee fails to meet the agreed standards.

Access agreements need to define the procedures to follow (as well as each party's role) during planned and unplanned supply system maintenance, including meter installation and essential repairs. Agreements should contain a minimum notification period for planned work. This should include a process for notifying customers of a reduced supply or interruptions and, where appropriate, confirmation of the return to normal service. The water undertaker must set the notice period, because it knows its own planning process and therefore how much notice it can give. We expect the notice period to have due regard to the nature of the supply, for example quality, quantity, pressure, interruptability, storage and alternative supply arrangements available to either party.

The water undertaker must inform the licensee when it will carry out work on assets within those parts of the supply system used by both parties and whether this will affect supplies to the licensee's customer's premises or use of its sources. The water undertakers (primary and secondary) should arrange to discuss with the licensee regularly (perhaps every three months) their planned maintenance programmes and should co-ordinate with the licensee on how to minimise disruption to customers and/or water sources. For example, some large businesses close down for holiday periods and it would be sensible for work that might otherwise affect their supplies to be done during those times. Similarly, the licensee must inform the water undertaker of any planned maintenance to its water sources. Licensees already pay for system storage through access charges. In cases where this is not adequate to cover periods of maintenance, the licensee is likely to require standby supplies.

The water undertaker and licensee should seek to agree when the maintenance is to be carried out. They should also agree timescales for notifying each other of their intentions to carry out work that will disrupt the operation of the supply system, the licensee or its customers.

The licensee will be responsible for informing its customers of any disruption in supply as a result of maintenance carried out by either party.

The water undertaker will agree with the licensee what to do if planned maintenance overruns (that is, it becomes unplanned), and whether compensation may be payable to the licensee if this happens. The water undertaker should set out in its access code the circumstances in which it shall pay compensation and the amounts, although it may agree different compensation arrangements with licensees in specific access agreements.

The access agreement should include circumstances in which the licensee must pay compensation to the water undertaker.

Access agreements between licensees and secondary water undertakers should also cover the circumstances in which each will pay compensation to the other.

5.5 Metering and flow balancing

A water undertaker is likely to require a licensee who plans to introduce water into its supply system to install a meter at the entry point. This should meet the water undertaker's specification. It is reasonable for a water undertaker to measure the licensee's flows into and out of its supply system. This does not imply that only customers currently charged on a measured basis are eligible to switch supplier. The licensee must measure its customers' demands, at least in bulk, but it is entitled to charge its customers on an unmeasured basis. It is for the licensee to agree the charging arrangements with each of its customers.

The licensee should own (and retain ownership of) the meter, which should be on its own infrastructure at the entry point into a water undertaker's supply system. The licensee may wish to incorporate the meter into the process monitoring system of the (combined) licensee's treatment plant. There may be situations where, by agreement between the licensee and water undertaker, it is more practical for the latter to own and maintain the source meter.

A meter on a water undertaker's supply system will remain the property of the water undertaker. Ordinarily, the water undertaker should retain ownership of the meter (or meters) at a customer's premises. That will avoid the need for a licensee to sell or lease the meter(s) if a customer chooses to revert to the water undertaker or to take supplies from another licensee. The water undertaker is not required to sell or lease its meter to the licensee.

The licensee should be responsible for reading meters on its customer's premises, but it will have to share meter and meter reading information with the water undertaker (section 205 WIA91). A water undertaker should still have access to the meter and it will be responsible for maintenance (as it is part of the supply system). Meter maintenance and reading can, however, be outsourced as part of the access agreement.

The access agreement should set out the process for dealing with disputes about meter readings. Licensees and water undertakers may wish to agree an arbitration route along the lines of that open to water undertakers and their customers in the Water (Meters) Regulations 1988.⁵⁷

The pricing chapter of this guidance sets out the approach to charges for metering activities.

⁵⁷ SI 1988 No 1048, regulation 11.

There needs to be provision for meter readings to be shared with the sewerage undertaker (if the water and sewerage services are supplied by different undertakers). Standard Licence Condition 5 requires the licensee to inform the sewerage undertaker of any premises connecting to the distribution system for the first time, so that the sewerage undertaker can charge the new customers and connect them if necessary. The sewerage undertaker should not have an access agreement with the licensee, but still needs meter readings for its billing purposes. Section 205 WIA91 requires meter readings to be shared between the licensee and sewerage undertaker. If the sewerage undertaker requires more frequent readings than provided by the licensee, it can seek to make alternative arrangements (subject to paying the licensee's costs). If the parties cannot agree they can refer the matter to arbitration. Ultimately, the undertaker has a right of access to read meters under section 172 WIA91 and can make its own arrangements to take a reading.

Meter under-registration describes a situation where the meter used to measure the quantity of water used under-records the amount passing through it. This might happen when the mains water pressure is too low to allow the true volume of water to be accurately measured. For the purposes of determining eligibility, the threshold requirement relates to the chargeable volume of water (ie the volume of water as measured by the meter). It does not relate to any volume of water that the meter does not record.

We expect water undertakers and licensees to agree case-specific arrangements in access agreements on how to balance water flows over time. The agreement should also specify the information that each party will provide, depending on the method of balancing in each case. However, water undertakers should specify in their access codes which of the following would be included in access agreements:

- forecasts of supply and demand, including planned outages and maintenance;
- notification of deviation from forecasts;
- a requirement for the licensee to introduce a volume of water, equivalent to its customer's exact demand, into the water undertaker's supply system at agreed intervals and disregarding the customer's actual consumption;
- reconciliation of input and demand at periods agreed between the water undertaker and the licensee; and
- financial adjustments for over-supply and under-supply as agreed between the water undertaker and the licensee.

The licensee must introduce into the water undertaker's supply system only sufficient water to meet the exact demand of its customer, taking no account for potential leakage in the supply system. As the customer is responsible for on-site leakage, this is counted as part of its supply. Our 'Guidance on eligibility' describes how to deal with leakage from the supply system for the purpose of assessing eligibility.

5.6 Emergency procedures and contacts

An incident may occur when the quality of the licensee's water falls outside the prescribed values, but there is no immediate risk to health and water continues to be supplied. However, a situation could occur where there is a risk to health and the introduction of water has to be suspended, in which case different procedures should be invoked.

Water undertakers and licensees (combined and retail) are required to notify the relevant bodies, as detailed in the Water Undertakers (Information) Direction 2004⁵⁸ (for water undertakers in England) and also the Water Supply (Water Quality) Regulations, of any incident that may affect drinking water quality or sufficiency of supplies. Due regard should also be paid to DWI's Information Letters 13/1999 and 12/2004, together with its Guidance on the Notification of Events.

Standard Licence Condition 5 requires licensees immediately to inform the relevant water undertaker if they become aware of any actual or potential incident which affects or is likely to affect water quality. For those purposes, an incident includes regulatory infringements which would put the licensee or relevant water undertaker at risk of supplying water which is unwholesome or unfit for human consumption within the meaning of sections 67 and 70 WIA91. Licensees should adhere to the best practice procedures adopted by water undertakers to provide such information to the Consumer Council for Water (CCW)⁵⁹.

There are provisions in the WIA91⁶⁰ that require licensees to give water undertakers with information on water resource management, drought planning (see section 5.3 above) and emergency planning. The Security and Emergency Measures (Water and Sewerage Undertakers) Direction (1998) will be supplemented by a new direction for water undertakers in relation to water supply licensing and by separate directions which will cover each licensee.

If the water undertaker has reasonable cause to suspect that an incident has or is likely to occur it should stop the further introduction of water by the licensee until the incident is over. We consider that an indemnity is not required, provided the water undertaker can demonstrate why it is cutting off the introduction. Supplies to the licensee's customer should continue under the interim supply duty in section 63AC WIA91. However, the interim supply duty will not apply if it would put at risk water undertaker's ability to meet its existing supply obligations for all purposes and its probable future obligations to supply water for domestic purposes or require unreasonable expenditure to do so.

⁵⁸ See also Water Supply (Water Quality) Regulations 2000, SI 2000/3184, amended by SI 2001/2885, in England Water Supply (Water Quality) Regulations 2001, SI 2001 No 3911 in Wales.

⁵⁹ A Consumer Council for Water, independent of Ofwat, will replace the present WaterVoice arrangements. Its function will be to represent and protect the interests of all customers. The CCW will represent the interests of both customers at eligible and ineligible premises under the water supply licensing regime.

⁶⁰ The new Security and Emergency Measures (Licensed Water Suppliers) Directions made under section 208 WIA91.

The licensees should be thoroughly briefed by the water undertaker on any relevant emergency action plans before a live connection is made. The water undertaker can reasonably expect the licensee to provide details of the licensee's emergency procedures and to demonstrate them. It is up to the licensee and water undertaker to agree appropriate testing procedures if they are required. Responsibilities and procedures for local incident management teams also need to be defined in the access agreement. It is good practice to include the licensee in emergency and incident exercises to foster understanding of procedures. The licensee's emergency plans and procedures will be audited each year under the directions made under the WIA91. A water undertaker may wish to share its own plan to ensure compatibility. Under the direction, the plans have to be reviewed by both parties regularly.

The water undertaker and the licensee should meet at least once a year to discuss emergency plans to foster co-operation and ensure compatibility.

Subject to statutory directions, and before live connection, the parties should agree responsibilities and procedures for:

- security of supply;
- failure of plant and machinery;
- hydraulic incidents;
- pressure incidents, such as depressurisation;
- water for firefighting purposes and fire hydrant flushing; and
- contamination or pollution incidents.

The water undertaker and the licensee must both liaise with the Environment Agency for pollution control and proper management of water resources. They should also work together to comply with nationally agreed security standards and, where appropriate, those measures required for specific local circumstances.

Along with emergency plans under the relevant directions, access agreements need to identify the procedures to follow (as well as each party's role) during periods of unplanned interruptions to supply and whether compensation may be payable to either party in these events. Access codes should also explain this in general terms.

5.7 Contract changes to access agreements

Once a licensee has been granted access to a water undertaker's supply system, it should not then be able to delegate or sub-contract its obligations under the access agreement to a third party licensee without the water undertaker's agreement. The third party will need to be a holder of a Water Supply Licence in order to provide any access services to customers (as explained in our guidance on the licence application process). The water undertaker will need to know about the third party licensee's technical ability to fulfil the delegation or sub-contract. Also, there may be emergency and security implications that water undertakers need to be aware of. A third party licensee should deal directly with the water undertaker to enable the latter to maintain control of the system. A term to that effect should be incorporated into the access agreement.

6 Access charges

6.1 Access pricing objectives

The objectives of this chapter of the guidance are to:

- enable water undertakers to calculate access prices (for combined and wholesale supplies) for prospective entrants; and
- allow potential licensees to check that prices have been calculated correctly.

We will do this by:

- explaining the costs principle that water undertakers need to apply;
- setting out a consistent and transparent pricing methodology; and
- confirming the treatment of various price components.

The guidance explains how to produce final access prices for specific customers and how to produce indicative access prices (which are not customer-specific). The guidance should also help to avoid legal uncertainty and undue discrimination because water undertakers must:

- not be able to interpret the guidance in different ways in order to choose an interpretation that suits them best;
- not discriminate unduly between licensees in setting combined and wholesale prices - provided water undertakers set access prices by following the costs principle, they should avoid undue discrimination; and
- not charge access prices that are inconsistent with their retail tariffs - this can be achieved by using the retail tariff, where appropriate, as a starting point for calculating access prices, as the costs principle requires⁶¹ (see below).

6.2 When should the guidance be used?

We require each water undertaker to include in its access code indicative access prices based on this guidance by August 2005.

The licensee and water undertaker should agree final access prices as part of their access agreement. The terms of the access agreement need to be set in accordance with the WIA91 and in particular the costs principle and this access code guidance. The guidance will also form the basis of our approach to setting access prices if we are required to make a determination.

6.3 Costs principle

Section 66E WIA91 (see appendix 1) sets out the costs principle in accordance with which water undertakers must set their access prices. The aim of the costs principle is to produce prices that fully compensate each water undertaker for the net costs (or

⁶¹ Secondary supplies under section 66C require a different starting point.

expenses) that it unavoidably incurs when providing a combined or wholesale supply as compared with its continuing to supply the final customer. This should ensure that:

- customers who do not participate in the new regime do not subsidise those who do; and
- licensees are treated fairly.

The costs principle allows the water undertaker to recover the following cost elements from the licensee:

- (a) any expenses reasonably incurred in providing wholesale water supplies or allowing water to be introduced into its system;
- (b) the appropriate amount (defined as being the amount which the water undertaker reasonably expected to recover from relevant customers but is unable to recover from those customers as a result of their premises being supplied with water by the licensee) in respect of 'qualifying expenses' and a reasonable return on that amount, to the extent that those sums exceed any financial benefits which the water undertaker receives as a result of the supplier supplying water to the premises of the relevant customers.

'Qualifying expenses' means expenses (whether a capital nature or otherwise) that the water undertaker has reasonably incurred or will reasonably incur in carrying out its statutory functions (excluding any return). 'Relevant customers' means customers to whose premises the licensee is to make a supply of water under the access agreement in question.⁶²

The costs principle also makes an adjustment in the amount that the water undertaker can recover from the licensee by taking account of costs that the water undertaker will no longer face because the licensee supplies water to the customer. These costs are expenses that can be avoided or reduced; or any amount that is recoverable in some other way (other than from other customers of the water undertaker). These costs are referred to by the acronym ARROW costs within this guidance.

For access under sections 66A and 66B, the costs principle offers a 'retail-minus' approach to setting access prices. For supplies under section 66C, the method for setting prices is based on actual expenses incurred.

6.4 The Government's intentions for introducing the costs principle

We have, in developing our guidance, also looked at the Government's intentions⁶³ behind the costs principle. They can be summarised as follows:

⁶² For supplies under section 66C, we believe there are no 'relevant customers'.

⁶³ For example: House of Lords Standing Committee D, Thursday 16 October 2003, Hansard Col 272-274 and Defra Consultation Paper July 2002 'Extending Opportunities for Competition in the Water Industry in England and Wales' Chapter 2.

- continuing to share costs that are linked to the Government’s social objectives across a wide customer base;
- remunerating water undertakers for assets that are unavoidably stranded due to access; and
- protecting remaining customers including those who are ineligible for competition.

Our guidance supports these intentions. It should ensure that water undertakers should be financially indifferent to who supplies the end customer.

6.5 Methodology for calculating access prices

In following our interpretation of the costs principle, the starting point for setting the access prices is the revenue the water undertaker reasonably expected to recover from the customer which is now to be supplied by the licensee. For supplies under sections 66A and 66B, we interpret that to mean the charge that the customer pays, usually the retail tariff. From that charge, the water undertaker should deduct costs that can be reduced or avoided and any amount that is recoverable in some other way (other than from its other customers) as a consequence of the licensee providing water to the particular customer. If the water undertaker incurs additional costs as a result of providing access, it can add those to the access price.

In general, water undertakers should apply the retail-minus approach as follows:

Equation 6.5.1

Access price = any expenses reasonably incurred + retail charge – ARROW costs

Water undertakers should apply the following general approach to provide access prices for each year⁶⁴ that the licensee requires access. The retail charge should be calculated as the annual income that the water undertaker expects to recover under the customer’s existing tariff or contract for the volume of water that the customer requires. Water undertakers should calculate annual ARROW costs by comparing the forecast expenditure arising from a water resource management plan when the licensee does not have access. The expenditure profile in the case where the licensee has access should include forecast savings in operating expenses (opex) and the value of any investment avoided, deferred or advanced, including allowances for changes in the level of depreciation. Additional costs should be calculated on the same comparative basis.

In order to calculate the access price for a particular customer, the water undertaker will need to use information that is specific to the access arrangement(s) being considered. In the case of wholesale supply, these include the timing and duration of the access and the location of the customer. More information is required for combined supply arrangements because these also depend on the entry point(s) for the licensee’s water, whether the licensee requires connection and whether this generates the need for network reinforcement. Water undertakers may also be able to change their investment plans when licensees make water available. They should

⁶⁴ This approach may need to be modified to avoid negative access prices. See appendix 2.

identify changes in the scope and timing of projects needed to optimise their future costs of maintaining a supply/demand balance. Specifically, water undertakers may be able to defer or reduce the scale of individual projects. (The worked example in appendix 2 figure A2.1 illustrates this.)

In the case where a licensee requires a wholesale supply of water from a secondary water undertaker (which it will subsequently introduce into the primary water undertaker's supply system), the access price equation for the secondary water undertaker is simplified to become:

Equation 6.5.2

Access price = any expenses reasonably incurred

Expenses must not include any historic costs or return on sunk capital. The 'retail charge' and 'ARROW costs' terms in the full retail-minus calculation do not apply because the secondary water undertaker would not otherwise be supplying the 'relevant customer'.

6.6 Allowing for the effect of future price control reviews

Combined supply arrangements between water undertakers and licensees are likely to last for up to 25 years. Therefore, water undertakers may need to defer investment from one price control period into a subsequent price control period because a licensee makes water resources available.

To avoid any effects on a water undertaker's revenue from deferring investment between price review periods, we will use the following approach.

- We will require access prices to be expressed as a discount from the water undertaker's retail prices.
- We will take into account at price reviews:
 - the forecast access charges;
 - the reduced costs from no longer supplying as much water to final customers; and
 - the reduced retail revenue due to losing a final customer to a licensee.

The following example explains the potential problem and how the solution works. Consider a case where a water undertaker can defer a planned investment that has a total financing cost of £1 million over five years because a licensee now supplies one of its customers. Suppose the retail revenue would otherwise have been £1.5 million over the next five-year control period. The access charge would be £1.5 million less £1 million of ARROW costs. So the water undertaker would exclude from its business plan £1.5 million retail revenue but add back £0.5 million in combined supply revenue. The water undertaker would then have a shortfall of £1 million (-£1.5 million +£0.5 million) which would have to be financed through the price limits. This is exactly equivalent to the amount we would have allowed in the absence of entry to finance the planned investment.

In this way, it is possible to set price limits that reflect the revised investment levels in the business plan and still ensure that the benefit of not having to invest is passed to the licensee.

6.7 Format for case-specific access prices

The water undertaker needs to provide case-specific access prices to licensees in a standard format.

Wholesale prices

The water undertaker should express the wholesale price as an absolute price in the year in which it expects the access agreement to commence. For all subsequent years it needs to express these prices as a combination of a fixed and variable discount on the retail price. The table below illustrates this.

Table 6.7.1: Format required for case-specific wholesale prices

Required Volume 500,000 m ³ per year	£*	£* Per m ³
Retail Charge	346781	0.6936
Year 1 Discount on Retail Charge	397	0.0008
Wholesale Charge	346384	0.6928
Subsequent years		
Fixed Discount	349	
Variable Element	48	0.0001
Total discount	397	
*Base year (e.g. 2004-05) and price base (e.g. 2004-05)		

In this example the discount in subsequent years will need to be expressed as a fixed discount of £349 plus a variable discount of £0.0001 per m³. These discounts should be adjusted for the inflation index that we apply to undertakers' price limits .

The retail charge in subsequent years should reflect actual changes in tariffs. These changes will include our price limits (or K factors) and an inflation index (we currently use RPI).

Combined supply prices

Water undertakers must specify combined supply prices for each year of the required contract period. In addition to the fixed and variable wholesale discounts they need to show the additional discount due to the common carriage element of the supply. Table 6.7.2 below shows the format water undertakers must use.

Table 6.7.2: Format required for case-specific combined supply prices

Years of Contract	Wholesale Fixed Discount on Retail Charge	Wholesale Variable Discount on Retail Price	Common Carriage Discount on Retail Price
Supply Volume 500 Ml /yr.	£ [Price Base 2004-05]	£/m ³ [Price Base 2004-05]	£/m ³ [Price Base 2004-05]
2005-06	349	0.0001	0.0400
2006-07	349	0.0001	0.0400
2007-08	349	0.0001	0.5234
2008-09	349	0.0001	0.6234
2009-10	349	0.0001	0.2000
2010-11	349	0.0001	0.2000
2011-12	349	0.0001	0.2000
2012-13	349	0.0001	1.0727
2013-14	349	0.0001	1.0677
2014-15	349	0.0001	0.4640
2015-16	349	0.0001	0.3631
2016-17	349	0.0001	0.3581
2017-18	349	0.0001	0.3531
2018-19	349	0.0001	0.3481
2019-20	349	0.0001	0.3431
2020-21	349	0.0001	0.3381
2021-22	349	0.0001	0.3331
2022-23	349	0.0001	0.3331
2023-24	349	0.0001	0.3331
2024-25	349	0.0001	0.3331
2025-26	349	0.0001	0.3331
2026-27	349	0.0001	0.3331
2027-28	349	0.0001	0.3331
2028-29	349	0.0001	0.3331
2029-30	349	0.0001	0.3331

6.8 The basis for calculating indicative access prices

Potential entrants need access price information to identify opportunities for wholesale or combined access. However, it would not be practicable for water undertakers to calculate detailed case-specific prices for purely indicative purposes. Therefore, water undertakers should follow a simplified method.

The simplified requirements below have been informed by industry advisory group discussions.

Water undertakers need to calculate indicative prices:

- for each water resource zone (WRZ);
- based on two standard volumes of water, that is 50 MI and 500 MI per year;
- for both wholesale and combined access;
- for each of the next five years;
- with access starting in each of the next five years (for combined supply);
- with updates on an annual basis; and
- for potable water.

The method is described in detail in appendix 3. Indicative access price calculations will be subject to scrutiny by Reporters.

6.9 The format for published indicative access prices

Wholesale prices

Water undertakers need only calculate indicative wholesale and common carriage prices for pre-set volumes. Consequently, it is not necessary to show the fixed and variable elements of the wholesale discount.

For common carriage access prices, water undertakers must also publish supply deficit information for each of their WRZs.⁶⁵ This should provide a broad indication of how access prices may change over the 20-year period following the initial five years for which water undertakers have provided prices.

Tables 6.9.1 and 6.9.2 below show the format of the indicative wholesale and combined access information that water undertakers must publish. Water undertakers must specify the price base for the information.

Table 6.9.1: Format required for indicative wholesale price information

	Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Company specific Large User K	%		10.0	4.0	3.5	3.0	2.0
For 50MI per annum							
Retail price	£/m ³ *	0.7836	0.8619	0.8964	0.9278	0.9556	0.9747
Wholesale price	£/m ³ *	0.7765	0.8548	0.8893	0.9207	0.9485	0.9676
Wholesale discount	£/m ³ *	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071
For 500MI per annum							
Retail price	£/m ³ *	0.6936	0.7629	0.7934	0.8212	0.8458	0.8628
Wholesale price	£/m ³ *	0.6928	0.7621	0.7926	0.8204	0.8450	0.8620
Wholesale discount	£/m ³ *	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008
* Price base [2004-05]							

⁶⁵ Using the same definition of WRZ as they do in their water resource plans submitted to Ofwat/the Environment Agency.

Table 6.9.2: Format for indicative combined supply prices

Access start date (e.g. 2005-6)^ Water resource zone (X) in Tariff area (Y), price base (e.g. 2004-05).		2005-06	2006-07	2007-08	2008-09	2009-10
Forecast supply surplus without licensee's water or water undertaker's investment* (-ve is deficit)	MI/d	2.00	1.00	0.00	-1.00	-2.00
50 MI per year						
Retail price	£/m ³	0.8619	0.8964	0.9278	0.9556	0.9747
Combined supply discount	£/m ³	0.0471	0.0471	0.5275	0.1441	0.1441
Supply Surplus with licensee's water and water undertaker's revised investment plan.	MI/d	2.14	1.14	5.14	4.14	3.14
500 MI per year						
Retail Price	£/m ³	0.7629	0.7934	0.8212	0.8458	0.8628
Combined supply discount	£/m ³	0.0408	0.0408	0.5242	0.6242	0.2008
Supply Surplus with licensee's water and water undertaker's revised investment plan.	MI/d	3.37	2.37	1.37	0.37	5.37

Notes: ^ Water undertakers should provide versions of this table with entry starting in each of the next five years.

*It will be necessary to provide this information for each of the 25 years covered by the water resource management plan.

Indicative access prices from secondary water undertakers

We do not think that it is practicable for water undertakers to provide indicative wholesale prices for a secondary water undertaker, since it would not be possible to determine the meaningful 'additional costs' (in equation 6.5.2) without case-specific information. Secondary water undertakers will publish supply deficit information for each WRZ in their role as primary water undertakers. Therefore, entrants will be able to get some indication of whether low-priced water could be available from an adjacent area by checking if a supply surplus or deficit is forecast in a WRZ adjacent to the one in which they want to supply.

6.10 How to calculate access prices

Although water undertakers generally need to use a retail-minus approach to calculate access prices, there are differences in the detail, depending on whether the required price is case-specific or indicative and for wholesale or common carriage.

Appendix 2 describes how to calculate case-specific access prices.

Appendix 3 describes how to calculate indicative access prices.

7. Glossary of terms

There follows a brief description of some of the terms used in the WSL regime. Readers should refer to WIA91 for precise statutory meanings.

Access: The wholesale supply of water by a water undertaker to a licensee for the purpose of making a retail supply of water to the premises of the licensee's customer; and the introduction of water by the licensee into a water undertaker's supply system for that purpose.

Access agreement: An agreement between a water undertaker and a licensee for access by a licensee to a water undertaker's supply system pursuant to the Retail Authorisation and/or Supplementary Authorisation.

Access code: A water undertaker's document that sets out all principal aspects of access to its supply system and the terms and conditions on which it will grant access to its supply system by a licensee. The access code comprises the standard terms and conditions common to all water undertakers and the terms and conditions specific to that water undertaker.

Access terms: The terms under which a water undertaker and a licensee agree access to the water undertaker's supply system.

ARROW costs: Expenses that can be Avoided or Reduced, or any amount that is Recoverable in some Other Way (other than from other customers of the water undertaker) (see section 66E(3) WIA91).

Combined Licence: A Retail Licence with the Supplementary Authorisation, authorising the holder to introduce water into a water undertaker's supply system and to retail that water to a customer's eligible premises (section 17A(6) WIA91).

Combined supply: A supply made pursuant to a combined licence.

Costs principle: As defined in section 66E WIA91.

Defra: Department for Environment, Food and Rural Affairs.

DWI: Drinking Water Inspectorate.

Eligible premises: Premises that satisfy the eligibility requirements in section 17A(3) WIA91. Each of the following three requirements must be satisfied in relation to each of the premises in order for a customer's premises to be eligible.

- The customer's premises must not be 'household premises' (as defined in section 17C WIA91).
- When the licensee first enters into an undertaking with a customer to give the supply, the total quantity of water estimated to be supplied to the premises annually by the licensee must be not less than 50 megalitres (the "threshold requirement", section 17D WIA91).

- The premises may only be supplied by one licensee (but may also be supplied by one or more water undertakers).

Guaranteed Standard Scheme (GSS): A scheme that lays down the minimum guaranteed standards of service that water companies have to deliver. Water companies have to pay compensation to customers if they fail to meet these standards.

Licensee: A company holding either a Retail Licence or a Combined Licence; also referred to as a licensed water supplier.

NAW: The National Assembly for Wales.

Non-potable: Water which is not intended for domestic or food production purposes.

Potable: Water for domestic and food production purposes which is wholesome at the time of supply. This is defined in section 68 of the WIA91 and section 4 of the Water Supply (Water Quality) Regulations.

Primary water undertaker: For the purposes of section 66A WIA91 (wholesale water supply by primary water undertaker) and section 66C WIA91 (wholesale water supply by secondary water undertaker), a water undertaker is the primary water undertaker of a licensee if the undertaker's supply system is to be used for the purposes of making the supply to the premises of the licensee's customer.

Reporters: Independent engineering consultants who are appointed by companies, but are under a duty of care to the Director on the accuracy of companies' returns to us and whether the returns show progress and performance, particularly in respect of capital investment programmes.

Retail authorisation: An authorisation to a company to use a water undertaker's supply system for the purpose of supplying water to the eligible premises of customers of the company (section 17A(2) WIA91).

Retail Licence: A Water Supply Licence giving the holder the Retail Authorisation, entitling the holder to purchase wholesale a supply of water from the water undertaker and to supply it retail to a customer's eligible premises (section 17A(4) WIA91).

Secondary water undertaker: A water undertaker other than a licensee's primary water undertaker (section 66C(1)(a)(i) WIA91).

Standard conditions of water supply licences: The standard terms and conditions of Water Supply Licences determined and published by the Secretary of State (for the Environment Food and Rural Affairs) pursuant to section 17H WIA91.

Supplementary authorisation: An authorisation to a company to introduce water into a water undertaker's supply system for the purpose of making a retail supply of water to a customer.

Supply system: Any water mains and other pipes used for the purposes of conveying potable water from a water undertaker's treatment works to its customer's premises and any non-potable networks that are not connected to any potable system. This term is defined in section 17B(5) of the WIA91.

Telemetry: The technology for automatically measuring and transmitting data by radio or other means from remote sources to receiving stations.

Water Fittings Regulations: The Water Supply (Water Fittings) Regulations 1999. These Regulations replaced the Water Bylaws in England and Wales and are largely enforced by the water undertakers.

Water resources management plan: A water undertaker's long term strategic plan for water resource development in its area (see section 37A WIA91).

Water Supply Licence: A licence granted to a company giving it the Retail Authorisation, or both the Retail Authorisation and the Supplementary Authorisation.

Water Supply (Water Quality) Regulations: The Water Supply (Water Quality) Regulations, SI 2000 No 3184, amended by SI 2001 No 2885, which apply to water undertakers whose area of supply is wholly or mainly in England; The Water Supply (Water Quality) Regulations 2001, SI 2001 No 3911, which apply to water undertakers whose area of supply is wholly or mainly in Wales. These Regulations specify the standards used to define wholesomeness of drinking water, the level of monitoring required, treatment requirements, reporting requirements and also specify the requirements for using approved substances and products. The DWI enforces these Regulations.

Water undertaker: A company appointed under the WIA91 to provide water services to a defined geographic area and which owns the supply system and other infrastructure.

WIA91: The Water Industry Act 1991 (as amended by the Water Act 2003).

Wholesale supplies: Supply of water to a licensee by a water undertaker for the purposes of retail by the licensee to its customer's premises

WRZ: Water Resource Zone.

Appendix 1: Extract from Water Industry Act 1991

"CHAPTER 2A SUPPLY DUTIES ETC: LICENSED WATER SUPPLIERS

Duty of undertaker to supply licensed water supplier etc "66A Wholesale water supply by primary water undertaker

- (1) This section applies where-
 - (a) a licensed water supplier requests its primary water undertaker to provide it with a supply of water for the purpose of supplying water to the premises of its customers in accordance with the retail authorisation; and
 - (b) the premises are in the area of the undertaker.
- (2) Where this section applies, it shall be the duty of the primary water undertaker, in accordance with an agreement or determination for such period and containing such terms and conditions as may be provided for under section 66D(2) below-
 - (a) to take any such steps-
 - (i) for the purpose of connecting the premises in question with the undertaker's supply system; or
 - (ii) in respect of that system,as may be so provided for in order to enable the undertaker to provide the requested supply; and
 - (b) having taken any such steps, to provide that supply.
- (3) A primary water undertaker shall not be required by virtue of this section to provide a supply of water to a licensed water supplier, or to take any steps to enable it to provide such a supply, if-
 - (a) both of the first and second conditions are satisfied; or
 - (b) the third condition is satisfied.
- (4) The first condition is that-
 - (a) the premises to be supplied by the supplier do not consist in the whole or any part of a building; or
 - (b) the supply to be made by it to those premises is for purposes other than domestic purposes.
- (5) The second condition is that the provision of the supply by the undertaker would-
 - (a) require the undertaker, in order to meet all its existing obligations to supply water for domestic or other purposes, together with its probable future obligations to supply buildings and parts of buildings with water for domestic purposes, to incur unreasonable expenditure in carrying out works; or
 - (b) otherwise put at risk its ability to meet any of the existing or probable future obligations mentioned in paragraph (a) above.
- (6) The third condition is that there is a contravention in relation to the water fittings used or to be used in connection with-
 - (a) the supply of water to the premises to be supplied by the supplier; or
 - (b) the use of water in those premises,of such of the requirements of regulations under section 74 below as are prescribed for the purposes of this subsection.
- (7) Where-
 - (a) a request has been made by a licensed water supplier to its primary water undertaker for the purposes of subsection (1) above; and
 - (b) the steps which the undertaker is required to take by virtue of that request include steps for the purpose of obtaining any necessary authority for, or

agreement to, any exercise by it of any of its powers or the carrying out by it of any works,
the failure of the undertaker to acquire the necessary authority or agreement shall not affect any liability of the licensed water supplier, under any term or condition in accordance with which those steps are taken, to reimburse the undertaker in respect of some or all of the expenses incurred by it in taking those steps.

(8) A water undertaker is the primary water undertaker of a licensed water supplier for the purposes of this section and section 66C below if the undertaker's supply system is to be used for the purpose of making the supply to premises mentioned in those sections.

(9) In this section and sections 66B and 66C below-

(a) any reference to the supply system of a water undertaker shall be construed in accordance with section 17B(5) above; and

(b) any reference to the retail authorisation shall be construed in accordance with section 17A(2) above.

66B Introduction of water into water undertaker's supply system

(1) This section applies where-

(a) a qualifying licensed water supplier requests a water undertaker to permit it to introduce water into the undertaker's supply system, by means of which any particular supply of water to any premises in accordance with the retail authorisation is to take place, in connection with that supply; and

(b) the premises are in the area of the undertaker.

(2) This section also applies where-

(a) a water undertaker agrees to permit a qualifying licensed water supplier to introduce water into the undertaker's treatment works;

(b) in connection with that introduction, the supplier requests the undertaker to permit it to introduce water into the undertaker's supply system, by means of which any particular supply of water to any premises in accordance with the retail authorisation is to take place, in connection with that supply; and

(c) the premises are in the area of the undertaker.

(3) Where this section applies, it shall be the duty of the water undertaker, in accordance with an agreement or determination for such period and containing such terms and conditions as may be provided for under section 66D(2) below-

(a) to take any such steps-

(i) for the purpose of connecting the premises in question with the undertaker's supply system;

(ii) for the purpose of connecting the treatment works of the qualifying licensed water supplier with that system (in a case falling within subsection (1) above);

(iii) for the purpose of connecting with that system any source used by the qualifying licensed water supplier for the purpose of supplying water other than for domestic or food production purposes (in a case falling within subsection (1) above); or

(iv) in respect of that system,

as may be so provided for in order to enable the supplier to make the requested introduction of the water into that system; and

(b) having taken any such steps, to permit the requested introduction of the water into that system.

(4) A water undertaker shall not be required by virtue of this section to permit the introduction of water into its supply system, or to take any steps to enable a qualifying water supplier to make such an introduction, if the first or second condition is satisfied.

(5) The first condition is that permitting the introduction of the water into the water undertaker's supply system would-

(a) require the undertaker, in order to meet all its existing obligations to supply water for domestic or other purposes, together with its probable future obligations to supply buildings and parts of buildings with water for domestic purposes, to incur unreasonable expenditure in carrying out works; or

(b) otherwise put at risk its ability to meet any of the existing or probable future obligations mentioned in paragraph (a) above.

(6) The second condition is that there is a contravention in relation to the water fittings used or to be used in connection with-

(a) the supply of water to the premises to be supplied by the supplier; or

(b) the use of water in those premises,

of such of the requirements of regulations under section 74 below as are prescribed for the purposes of section 66A(6) above.

(7) Where-

(a) a request has been made by a qualifying licensed water supplier to a water undertaker for the purposes of subsection (1) or (2) above; and

(b) the steps which the undertaker is required to take by virtue of that request include steps for the purpose of obtaining any necessary authority for, or agreement to, any exercise by it of any of its powers or the carrying out by it of any works,

the failure of the undertaker to acquire the necessary authority or agreement shall not affect any liability of the supplier, under any term or condition in accordance with which those steps are taken, to reimburse the undertaker in respect of some or all of the expenses incurred by it in taking those steps.

(8) In this section "treatment works"-

(a) in relation to a water undertaker, means the works designated as treatment works by the Secretary of State for the purposes of section 17B(6) above;

(b) in relation to a qualifying licensed water supplier, means the works designated from time to time by the Secretary of State as treatment works for the purposes of this paragraph.

(9) Before designating any works for the purposes of subsection (8)(b) above, the Secretary of State shall consult the Welsh Assembly Government.

(10) A list of any works designated for the purposes of subsection (8)(b) above shall be published from time to time by the Secretary of State in such manner as he considers appropriate for the purpose of bringing the designations to the attention of persons likely to be affected by them.

(11) Any pipe laid in pursuance of subsection (3)(a)(ii) or (iii) above shall be regarded as a water main for the purposes of this Act, subject to any provision to the contrary.

(12) In this section and section 66C below, references to a qualifying licensed water supplier are references to a licensed water supplier which is the holder of a combined licence (within the meaning of Chapter 1A of Part 2 of this Act).

66C Wholesale water supply by secondary water undertaker

(1) This section applies where-

(a) a qualifying licensed water supplier-

- (i) requests a water undertaker other than its primary water undertaker (the "secondary water undertaker") to provide a supply of water for the purpose of the supplier supplying water, using the primary water undertaker's supply system, to the premises of the supplier's customers in accordance with the retail authorisation; and
 - (ii) requests its primary water undertaker to permit it to introduce that water into its supply system; and
 - (b) the premises are in the area of the primary water undertaker.
- (2) Where this section applies-
- (a) it shall be the duty of the secondary water undertaker, in accordance with an agreement or determination for such period and containing such terms and conditions as may be provided for under section 66D(2) below-
 - (i) to take any such steps in respect of its supply system as may be so provided for in order to enable it to provide the requested supply; and
 - (ii) having taken any such steps, to provide that supply; and
 - (b) it shall be the duty of the primary water undertaker, in accordance with an agreement or determination for such period and containing such terms and conditions as may be provided for under section 66D(2) below-
 - (i) to take any such steps specified in subsection (3) below as may be so provided for in order to enable the licensed water supplier to make the introduction of the requested supply of water into the primary water undertaker's supply system; and
 - (ii) having taken any such steps, to permit the introduction of that supply of water into that supply system.
- (3) The steps mentioned in subsection (2)(b)(i) above are steps-
- (a) for the purpose of connecting the premises in question with the primary water undertaker's supply system;
 - (b) for the purpose of connecting that system with the secondary water undertaker's supply system; or
 - (c) in respect of the primary water undertaker's supply system.
- (4) If the first or second condition is satisfied-
- (a) a secondary water undertaker shall not be required by virtue of this section to provide a supply of water to a licensed water supplier; and
 - (b) a primary water undertaker shall not be required by virtue of this section to permit the introduction of water into its supply system, or to take any steps to enable the licensed water supplier to make such an introduction.
- (5) The first condition is that the provision of the supply or permitting the introduction would-
- (a) require the undertaker in question, in order to meet all its existing obligations to supply water for domestic or other purposes, together with its probable future obligations to supply buildings and parts of buildings with water for domestic purposes, to incur unreasonable expenditure in carrying out works; or
 - (b) otherwise put at risk its ability to meet any of the existing or probable future obligations mentioned in paragraph (a) above.
- (6) This second condition is that there is a contravention in relation to the water fittings used or to be used in connection with-
- (a) the supply of water to the premises to be supplied by the supplier; or
 - (b) the use of water in those premises,

of such of the requirements of regulations under section 74 below as are prescribed for the purposes of section 66A(6) above.

(7) Where-

(a) requests have been made by a licensed water supplier to its primary water undertaker and secondary water undertaker for the purposes of subsection (1) above; and

(b) the steps which either of those undertakers is required to take by virtue of the request made to it include steps for the purpose of obtaining any necessary authority for, or agreement to, any exercise by it of any of its powers or the carrying out by it of any works,

the undertaker's failure to acquire the necessary authority or agreement shall not affect any liability of the licensed water supplier, under any term or condition in accordance with which those steps are taken, to reimburse the undertaker in respect of some or all of the expenses incurred by it in taking those steps.

(8) Any pipe laid in pursuance of subsection (2)(b)(i) above by virtue of subsection (3)(b) above shall be regarded as a water main for the purposes of this Act, subject to any provision to the contrary.

66D Sections 66A to 66C: determinations and agreement

(1) The Authority may determine, in a case referred to it by a licensed water supplier, whether any condition specified in section 66A(4) to (6), 66B(5) or (6) or 66C(5) or (6) above is satisfied (subject to section 66F below).

(2) The period for which and terms and conditions on which a water undertaker is to perform any duty under sections 66A to 66C above are-

(a) those which are-

(i) in a case falling within section 66A(2) or 66B(3) above, agreed between the water undertaker and the licensed water supplier in question; and

(ii) in a case falling within section 66C(2) above, agreed between the water undertakers and the licensed water supplier in question; or

(b) in default of such agreement, those which are determined by the Authority, in a case referred to it by the licensed water supplier in question, if they are acceptable to the supplier,

(subject to the following provisions of this section and sections 66E and 66F below).

(3) The charges payable by a licensed water supplier to a water undertaker under an agreement under paragraph (a)(i) or (ii) of subsection (2) above or a determination under paragraph (b) of that subsection shall be fixed in accordance with the costs principle set out in section 66E below.

(4) The Authority shall issue guidance in accordance with which the terms and conditions of an agreement under paragraph (a)(i) or (ii) of subsection (2) above shall be made.

(5) Before issuing guidance under subsection (4) above, the Authority shall consult such persons as it considers appropriate.

(6) The guidance issued under subsection (4) above shall include guidance with respect to the fixing of charges in accordance with subsection (3) above.

(7) Subsection (8) below applies if it appears to the Authority that an agreement under paragraph (a)(i) or (ii) of subsection (2) above has not been made in accordance with-

(a) subsection (3) above; or

(b) the guidance issued under subsection (4) above.

(8) The Authority may require the parties to the agreement to-

- (a) modify the agreement; or
 - (b) terminate the agreement,
- and that requirement shall be enforceable under section 18 above by the Authority.
- (9) Neither the OFT nor the Authority may exercise, in respect of an agreement under paragraph (a)(i) or (ii) of subsection (2) above, the powers conferred by-
- (a) section 32 of the Competition Act 1998 (directions in relation to agreements); and
 - (b) subsection (2) of section 35 of that Act (interim directions).
- (10) Subsection (9)(b) above does not apply to the exercise of powers in respect of conduct-
- (a) which is connected with an agreement under paragraph (a)(i) or (ii) of subsection (2) above; and
 - (b) in respect of which subsection (1)(b) of section 35 of that Act applies.

66E Section 66D: costs principle

- (1) The costs principle referred to in subsection (3) of section 66D above is that the charges payable by a licensed water supplier to a water undertaker, under the agreement or determination mentioned in that subsection, shall enable the undertaker to recover from the supplier-
- (a) any expenses reasonably incurred in performing any duty under sections 66A to 66C above in accordance with that agreement or determination, and
 - (b) the appropriate amount in respect of qualifying expenses and a reasonable return on that amount,
- to the extent that those sums exceed any financial benefits which the undertaker receives as a result of the supplier supplying water to the premises of relevant customers.
- (2) In subsection (1) above "qualifying expenses" means expenses (whether of a capital nature or otherwise) that the water undertaker has reasonably incurred or will reasonably incur in carrying out its functions.
- (3) For the purposes of subsection (1)(b) above, the appropriate amount is the amount which the water undertaker-
- (a) reasonably expected to recover from relevant customers; but
 - (b) is unable to recover from those customers as a result of their premises being supplied with water by the licensed water supplier licensee.
- (4) Nothing in subsection (3) above shall enable a water undertaker to recover any amount-
- (a) to the extent that any expenses can be reduced or avoided; or
 - (b) to the extent that any amount is recoverable in some other way (other than from other customers of the undertaker).
- (5) In this section "relevant customers" means customers to whose premises the licensed water supplier is to make any supply of water in connection with which the agreement or determination mentioned in subsection (1) above is made."

Appendix 2: Detailed methodology for calculating case-specific access prices

Although water undertakers generally need to use a retail-minus approach to calculate access prices there are differences in the detail depending on whether the required price is case-specific or indicative. This appendix looks specifically at how to calculate case-specific access prices. Indicative access prices are covered in appendix 3.

The numerical values used in this appendix are only provided to illustrate how this guidance should be applied. They should not be taken to indicate likely values of particular elements of income or costs.

Water undertakers need to record the rationale for establishing each of the cost and income values described in the tables in this appendix. Cost information should be specific to the WRZ. Water undertakers will need to record it in a format that will enable us and Company Reporters to scrutinise it.

If water undertakers include the effects of company specific tax rates, they should clearly state those rates.

Case-specific wholesale prices.

We will now describe how to apply the generalised equation 6.5.1.

Access price = any expenses reasonably incurred + retail charge – ARROW costs
to calculate case-specific wholesale prices.

Retail charge

This is the revenue that the water undertaker would have expected to receive each year from the customer had the water undertaker continued to supply it with water.

This should be based on the water undertaker's current terms of supply for that specific customer. These terms will usually be the water undertaker's large user tariff or a special agreement.

The retail charge for a new customer should be based on the water undertaker's large user tariff. If this is a seasonal tariff then the licensee will need to provide estimates of summer and winter water usage or maximum daily demands as appropriate.

For this example we shall consider a customer using 500MI of water per annum and a maximum daily demand of 2,740m³ on a tariff in 2004-05 that included:

A fixed charge of £5,000

A maximum daily demand charge of £70 per m³ per day

A volumetric charge for water supplied of £0.30 per m³

The retail charge would be:-

Fixed charge		£5,000
Maximum Daily Demand Charge	£70*2,740=	£191,781
Volumetric Charge	£0.3*500*1000=	<u>£150,000</u>
Total		£346,781

ARROW costs

ARROW costs are expenses that can be avoided, or reduced, or any amount that is recoverable in some other way (other than from other customers of the water undertaker). They should include overhead allocations and a rate of return.

The 'costs principle' contained in WA03 specifies that wholesale prices should be net of amounts recoverable in some other way. This means water undertakers should consider here amounts that can be recovered. It is not necessary for the actual recovery to have taken place.

Examples of 'amounts recoverable in some other way' may include:

- using billing systems, call centres and other customer service assets to provide services to associate companies to service newly acquired retail or common carriage customers;
- contracting with other non-group retailers or others to provide them with customer services at commercial prices;
- sale of redundant assets or land. (Appendix 2 annex 2 provides further guidance on land sales.)

The retail ARROW costs that need to be quantified are listed in the table below:

Table A2.1: Retail ARROW costs

Service Ref.	Retail activity	ARROW costs* (£) for a Specific customer £
R1	Customer billing	100
R2	Meter reading	200
R3	Maintenance of customer account information	2
R4	Payment handling	10
R5	Handling and resolving customers' calls, correspondence and complaints	4
R6	Debt collection and recovery procedures	4
R7	Doubtful debts (not customer specific)	30
R8	Advice on water efficiency and quality	6
R9	Sales, marketing and provision of information to specific customer	10
R10	Account management activities	200
R11	Cost of customer credit	40
R12	Other services provided to specific customer	0
R13	'Other' retail costs	0
R14	Competition related capital maintenance charges	0
R15	Total ARROW costs	606
	* Specify cost year (e.g.2004-05)	
	And price base (e.g. 2004-05)	

See appendix 2 annex 1 for more detailed descriptions of these retail activities.

Water undertakers should usually base case-specific retail ARROW costs on the average retail ARROW costs that they have calculated for indicative prices in table A3.1. If the water undertaker has identified specific reasons for a particular customer's ARROW costs to differ from the indicative ARROW costs then water undertakers should record these reasons. Customer-specific ARROW costs should be based, wherever possible, on the most recent full regulatory year.

Some of these types of ARROW costs that may occur are discussed below.

Services R1, R2, R3, R4, R8, R10 .

Customers will no longer require these services from the water undertaker. Water undertakers should use case-specific information for the frequency and type of services that they currently provide to assess this cost. If water undertakers provide those services directly, the costs should reflect full overhead allocation. Water undertakers should record the rationale for all cost allocations. If water undertakers use average costs, they should adjust them to reflect any additional effort in providing more complex or additional services to eligible customers.

When an external agent provides a water undertaker's services then the costs avoided should reflect the terms of the contract between the water undertaker and the agent.

R5 Customer complaint handling will be reducible. Licensees will handle customer complaints. The water undertaker may have to provide information to the licensee.

R7 Doubtful debt provision should be reducible. Water undertakers' liabilities for doubtful debts will reduce as customers transfer to licensees. Water undertakers should allocate the value of this reduced liability to the licensee.

R9 Water undertakers have discretion over how or if they continue to promote their products and services to licensee's customers.

R11 Licensees will bear the cost of providing customer credit.

R12 and R13 Water undertakers will have discretion over how of if they provide 'other services' and 'other retail services' previously provided to the customer.

R14 Competition related capital maintenance charges. These could be the costs of improving or updating the hardware for customer-facing systems. If water undertakers share this hardware with other non-appointed businesses, there may be costs that are recoverable in some other way.

Expenses incurred

If a water undertaker incurs expenses as a result of servicing a licensee, those expenses should be identified against the categories in the table below:

Table A2.2: Expenses incurred

Service Ref.	Retail activity	Expenses*(£) for services to specific licensee
R1	Licensee billing	50
R2	Meter reading	100
R3	Maintenance of licensee account information	1
R4	Payment handling	5
R5	Handling and resolving licensee's calls, correspondence and complaints	1
R6	Debt collection and recovery procedures	2
R7	Doubtful debts (not licensee specific)	0
R8	Advice on water efficiency and quality	0
R9	Sales, marketing and provision of information to customers	0
R10	Account management activities	20
R11	Cost of licensee credit	20
R12	Other services provided to specific licensee	0
R13	'Other' retail costs	0
R14	Competition related capital maintenance charges	10
R15	Total costs allocated	209
	* Cost year (e.g.2004-05)	
	And price base (e.g 2004-05)	

The water undertaker will incur expense by providing services and information to the licensee rather than to the customer. The water undertaker should not merely mirror its existing service to the customer but should re-design it to meet the requirements of its new relationship with the licensee.

Water undertakers' costs for processing access applications should not be treated as expenses. Application fees should be set to cover those costs.

Calculations

The wholesale price calculation can now be completed using the three components calculated above.

Table A2.3 shows how to calculate a wholesale charge for 50 Ml of water in 2004-05.

ARROW costs are subtracted from the sum of 'expenses' and 'retail income'.

Table A2.3: Case-specific wholesale price calculations

Wholesale price calculation for 500 MI per year for 2004-05	£*	£*
Fixed expenses	187	
Variable expenses	22	
Total expenses		209
Retail income		346,781
Fixed ARROW costs	536	
Variable ARROW costs	70	
Less total ARROW costs		606
Access charge		346,384
* Price base (2004-05)		

Table 6.7.1 shows how wholesale prices should be quoted as a fixed and variable discount on the retail price for subsequent years.

Table 6.7.1: Format required for case-specific wholesale prices

Required volume 500,000 m ³ per year	£*	£* Per m ³
Retail charge	346,781	0.6936
Year 1 discount on retail charge	397	0.0008
Wholesale charge	346,384	0.6928
Subsequent years		
Fixed discount	349	
Variable element	48	0.0001
Total discount	397	
*Base year (e.g. 2004-05) and price base (e.g. 2004-05)		

In this example the discount in subsequent years will need to be expressed as a fixed discount of £349 plus a variable discount of £0.0001 per m³. These discounts should be adjusted for the inflation index that applies to water undertaker's tariffs.

The retail charge in subsequent years should reflect actual changes in tariffs. These changes will include K factors and inflation.

Case-specific combined supply prices

Although case-specific common carriage prices are calculated on the same basis as case-specific wholesale prices there are more ARROW cost elements that need to be included.

Arrow costs

The water undertaker needs to calculate the ARROW costs for obtaining and treating water by comparing its forecast costs of maintaining the supply-demand balance with and without entry by the licensee. These common carriage ARROW costs are in addition to those used to calculate indicative wholesale prices. They should include a rate of return.

Worked example

Figure A2.1 is a worked example for a customer using 500 MI per annum under a 25-year combined supply contract commencing in 2005-06.

The assumptions used in this example are purely to illustrate the method of calculation.

The example shows a WRZ that has a current supply-demand surplus but is expecting to move to a deficit. This is shown in BLOCK 1 of Figure A2.1.

The water undertaker's forecast costs of maintaining a long-term supply demand balance are shown in BLOCK 2. These costs should be consistent with the latest Ofwat approved plan.

The water undertaker plans to overcome this deficit by investing £2 million in 2006-07 in order to make an additional 5 MI/day available in 2007-08.

The water undertaker plans to avoid further deficits by investing in additional water resources in 2011-12 and 2021-22.

BLOCK 3 shows how the water undertaker is able to modify its investment plan whilst still planning to maintain a long-term supply demand balance following the introduction of water by the licensee in 2005-06. The key changes between blocks 2 and 3 are to the timing and scope of the investments in new resources. The scheme originally planned for 2006-07 is now not required until early 2008-09. The scheme originally planned to provide new resources of 10 MI/day in 2011-12 has not only been deferred to 2014-15 but has also been scaled down (redesigned) to provide 9 MI/day.

The timing and size of the scheme in 2021-22 remains unchanged.

The following assumptions have been made in this example:

- The financing cost of capital is 7.3% post-tax.
- 80% of capital is subject to depreciation over 35 years.
- No depreciation on the remaining 20% of the capital.
- The opex cost of providing and treating existing water has been assumed to be £0.04 per m³. This is shown as 'Other Opex Saved' for the period before the new capacity is being utilised.

- The opex cost of water from the newly created capacity has been assumed to about £0.14 per m³ for the scheme originally scheduled for 2006-07. Subsequent schemes have progressively higher operating costs.

The “total costs” lines in BLOCK 2 and BLOCK 3 are the sum of the financing cost of capex, current cost depreciation and the two opex lines.

In BLOCK 3 the ‘Other Opex Saved’ is the avoided cost of £0.04 per m³ for existing water resources and treatment. This is shown as a negative cost. This is replaced by the higher cost resource when it comes on stream.

ARROW (£k) costs are calculated as the ‘Total Costs’ in BLOCK 2 less ‘Total Costs’ in BLOCK 3. ARROW Costs (£/m³) are ARROW Costs (£k) divided by 500,000 m³.

Water undertakers should cover the costs of making additional connections to their network by direct payments from the licensee and should therefore exclude them from the access price calculation.

**Figure A2.1: 500MI
BLOCK 1**

Undertaker's Water Supply-Demand Balance without Investment	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Supply-Demand Balance (Surplus shown as +ve) MI /day	2	1	0	-1	-2	-3	-4	-5	-6	-7	-8	-9

BLOCK 2

Undertaker's Plan to achieve a Supply-Demand Balance															
Supply-Demand Balance	MI/day		2	1	5	4	3	2	11	10	9	8	7	6	
Additional resources created	MI/day			5					10						
Capex to achieve balance	£m			2					4.5						
Financing Cost of Capex	£k				146	146	146	146	146	475	475	475	475	475	
Current Cost Depreciation	£k				46	46	46	46	46	149	149	149	149	149	
Annual use of newest resource	m3				365000	730000	1095000	1460000	1825000	365000	730000	1095000	1460000	1825000	
Opex for new resource	£k				50	100	150	200	250	305	360	415	470	525	
Other opex	£k		0	0	0	0	0	0	0	0	0	0	0	0	
Total Costs	£k		0	0	0	242	292	342	392	442	928	983	1038	1093	1148

BLOCK 1 (cont..)

Undertaker's Water Supply-Demand Balance without Investment	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Supply-Demand Balance (Surplus shown as +ve) MI /day	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20	-21	-22

BLOCK 2 (cont..)

Undertaker's Plan to achieve a Supply-Demand Balance															
Supply-Demand Balance	MI/day		5	4	3	2	9	8	7	6	5	4	3	2	1
Additional resources created	MI/day						8								
Capex to achieve balance	£m						5								
Financing Cost of Capex	£k		475	475	475	475	475	840	840	840	840	840	840	840	840
Current Cost Depreciation	£k		149	149	149	149	149	263	263	263	263	263	263	263	263
Annual use of newest resource	m3		2190000	2555000	2920000	3285000	3650000	365000	730000	1095000	1460000	1825000	2190000	2555000	2920000
Opex for new resource	£k		580	635	690	745	800	860	920	980	1040	1100	1160	1220	1280
Other opex	£k														
Total Costs	£k		1203	1258	1313	1368	1423	1962	2022	2082	2142	2202	2262	2322	2382

BLOCK 1

Undertaker's Water Supply-Demand Balance without Investment	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Supply-Demand Balance (Surplus shown as +ve) MI /day	2	1	0	-1	-2	-3	-4	-5	-6	-7	-8	-9

BLOCK 3

Undertaker's Plan to achieve a Supply-Demand Balance														
Supply-Demand Balance	MI/day	3.37	2.37	1.37	0.37	5.37	4.37	3.37	2.37	1.37	0.37	6.14	5.14	
Additional resources created	MI/day				5						9			
Capex to achieve balance	£m				2				3.6	0.5				
Financing Cost of Capex	£k			0	0	146	146	146	146	146	409	445	445	
Current Cost Depreciation	£k			0	0	46	46	46	46	46	82	94	94	
Annual use of newest resource	m3			0	0	365000	730000	1095000	1460000	365000	730000	1095000	1460000	
Opex for new resource	£k			0	0	50	100	150	200	257	315	372	430	
Other opex	£k		-20	-20	-20	-20	0							
Total Costs	£k		-20	-20	-20	-20	242	292	342	392	449	806	912	969
ARROW Costs (Common Carriage)	£k	0	20	20	262	312	100	100	100	536	534	232	182	179
ARROW Costs	£/cu m	0.0000	0.0400	0.0400	0.5234	0.6234	0.2000	0.2000	0.2000	1.0727	1.0677	0.4640	0.3631	0.3581

BLOCK 1 (cont..)

Undertaker's Water Supply-Demand Balance without Investment	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Supply-Demand Balance (Surplus shown as +ve) MI /day	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20	-21	-22

BLOCK 3 (cont..)

Undertaker's Plan to achieve a Supply-Demand Balance														
Supply-Demand Balance	MI/day	4.14	3.14	2.14	1.14	8.14	7.14	6.14	5.14	4.14	3.14	2.14	1.14	0.14
Additional resources created	MI/day					8								
Capex to achieve balance	£m					5								
Financing Cost of Capex	£k	445	445	445	445	445	810	810	810	810	810	810	810	810
Current Cost Depreciation	£k	94	94	94	94	94	208	208	208	208	208	208	208	208
Annual use of newest resource	m3	1825000	2190000	2555000	2920000	3285000	365000	730000	1095000	1460000	1825000	2190000	2555000	2920000
Opex for new resource	£k	487	545	602	660	717	777	837	897	957	1017	1077	1137	1197
Other opex	£k													
Total Costs	£k	1027	1084	1142	1199	1257	1796	1856	1916	1976	2036	2096	2156	2216
ARROW Costs (Common Carriage)	£k	177	174	172	169	167	167	167	167	167	167	167	167	167
ARROW Costs	£/cu m	0.3531	0.3481	0.3431	0.3381	0.3331	0.3331	0.3331	0.3331	0.3331	0.3331	0.3331	0.3331	0.3331

Calculations

The combined supply price calculation for 2005-06 can now be completed using the common carriage components calculated above and the wholesale elements from table 6.7.1.

Table A2.4: Case-specific price calculation

Combined supply price calculation for 500 MI per year in 2005-06	£*	£*	£*/m ³
Retail income (£346781 plus assumed K of 10% for 2005.06)		381,459	
(a) Plus expenses (Wholesale fixed)	187		
(b) Less ARROW Costs (Wholesale fixed)	536		
Wholesale fixed discount (b)-(a)		349	
(c) Plus expenses (Wholesale variable)	22		
(d) Less ARROW Costs (Wholesale variable)	70		
Wholesale variable discount (d)-(c)		48	0.0001
(e) Plus Expenses(common carriage)	0		
(f) Less ARROW costs (common carriage)	20,000		
Common carriage variable discount (f)-(e) (d)-(c)		20,000	0.0400
Total discount		20,397	
Access charge (Retail income less discounts)		361,062	
* Price Base (2004-05)			

Format for case-specific combined supply prices

The discounts shown in bold in the above table and the final row in figure A2.1 can now be used to provide combined supply prices for all contract years in the format shown below.

Table 6.7.2: Format required for case-specific combined supply prices

Years of contract	Wholesale fixed discount on retail charge	Wholesale variable discount on retail price	Common carriage discount on retail price
Supply volume [500] Ml/yr.	£ [Price base 2004-05]	£/m ³ [Price Base 2004-05]	£/m ³ [Price Base 2004-05]
2005-06	349	0.0001	0.0400
2006-07	349	0.0001	0.0400
2007-08	349	0.0001	0.5234
2008-09	349	0.0001	0.6234
2009-10	349	0.0001	0.2000
2010-11	349	0.0001	0.2000
2011-12	349	0.0001	0.2000
2012-13	349	0.0001	1.0727
2013-14	349	0.0001	1.0677
2014-15	349	0.0001	0.4640
2015-16	349	0.0001	0.3631
2016-17	349	0.0001	0.3581
2017-18	349	0.0001	0.3531
2018-19	349	0.0001	0.3481
2019-20	349	0.0001	0.3431
2020-21	349	0.0001	0.3381
2021-22	349	0.0001	0.3331
2022-23	349	0.0001	0.3331
2023-24	349	0.0001	0.3331
2024-25	349	0.0001	0.3331
2025-26	349	0.0001	0.3331
2026-27	349	0.0001	0.3331
2027-28	349	0.0001	0.3331
2028-29	349	0.0001	0.3331
2029-30	349	0.0001	0.3331

Common carriage discounts can be expressed in a form that more closely reflects an individual water undertaker's tariff structure. For example, water undertakers with tariffs that have maximum daily demand and volumetric components can apply the common carriage discount through either or both of those components to maintain appropriate price signals.

Negative access prices

The table above shows a large common carriage discount in of 1.0727 £/m³ in 2012-13 and 1.0677 £/m³ in 2013-14. This discount together with the wholesale discounts is equivalent to 1.0735 £/m³ in 2012-13 and 1.0685 £/m³ in 2013-14. These discounts may exceed the retail price in those years. Whether it does in fact will depend on the actual level of the retail charge in 2012-13.

We do not consider that the WIA91 permits water undertakers to apply negative access prices.

Water undertakers should roll over any discount in excess of the retail price for collection in subsequent years in order to maintain the value (in NPV terms) of the discount due to the licensee.

The following example, which assumes retail prices of 1 £/m³ in the period 2012-13 to 2014-15, illustrates this principle:

Table A2.5: Avoiding negative access prices

	[Price Base 2004-05]	2012-13	2013-14	2014-15
Actual retail price	£*/m ³	1.0	1.0	1.0
Required discount	£*/m ³	1.0727	1.0685	0.4648
Excess (Uncollected) discount	£*/m ³	0.0727	0.0685	
NPV of uncollected discount rolled forward two years from 2012-13	£*/m ³			0.0846
NPV of uncollected discount rolled forward 1 year from 2013-14 (discount rate of 7.3% assumed)	£*/m ³			0.0735
Adjusted discount	£*/m ³	1.0	1.0	0.6629

Water undertakers should approach us for additional guidance on specific cases where it is unlikely that this roll over approach will provide the licensee with its full discount within the contract period.

The lowest access price that undertakers could apply is zero in all years of the contract period.

Secondary supplies

In the case where a licensee requires a wholesale supply of water from a secondary water undertaker (which it will subsequently introduce into the primary undertaker's supply system), the access price equation for the secondary water undertaker is simplified to become:

Equation 6.5.2

Access price = any expenses reasonably incurred

Expenses should not include any historic costs or return on sunk capital. The 'retail charge and 'ARROW costs' terms in the full retail-minus calculation do not apply because the secondary water undertaker would not otherwise be supplying the 'relevant customer'.

The undertaker should identify the specific expenses it will incur to provide the secondary supply. Those expenses should not be based on existing tariffs or bulk supply terms. The undertaker should provide the wholesale price in a format that reflects the fixed and variable costs of providing the supply. See table A2.6 below. Undertakers need to consider whether they need to discuss future water resource availability with the Environment Agency before finalising licensees' contractual terms for secondary supplies.

Table A2.6: Format for case-specific secondary wholesale prices

Required Volume [500] MI per year in year [Y]	£*	£ per m ³
Expenses		
Fixed	2000	
Variable	80000	0.1600
Total	82000	
*Base year (eg 2004-05) and price base (eg 2004-05)		

The undertaker will need to provide this information for each year to be covered by the access agreement. This should include the revised cost of maintaining an ongoing supply demand balance. They should use the same method as for calculating common carriage ARROW costs that was illustrated in the spreadsheet Figure A2.1 except that no rate of return should be included.

It is up to secondary water undertakers to ensure that they build sufficient flexibility into their contracts with licensees so that they can alter the amount of water available at short-run marginal cost to reflect changes in their circumstances. In this way undertakers will be able to ensure their customers are not disadvantaged if there are changes to its forecast supply / demand balance position.

The costs of making additional connections to the undertaker's network should be covered by direct payment to the undertaker and should therefore not be included in this access price calculation.

Undertakers should calculate the combined supply price for the licensee to use the primary undertaker's supply system in the same way as for other combined supplies.

Allowing for future changes in water quality requirements

Water quality requirements in a water undertaker's area may change during the duration of a combined supply contract. Water undertakers should identify any consequential changes in their ARROW costs that result from the licensee providing water to meet the new quality requirements.

These should be reflected in future access prices for the relevant period.

Appendix 2: annex 1

This annex provides definitions of the retail activities in table A2.1 in appendix 2 and A3.1 in appendix 3.

It also describes how the information to be provided in table A3.1 should be reconciled to June return information.

Retail activity definitions for table A2.1 in appendix 2 and A3.1 in appendix 3.

Ref.	Retail activity	Definition
R1	Customer billing	Billing, calculation processing, printing, fulfilment and dispatch. Include here stationery costs and bill inserts. Include here manpower costs, materials and contract services, fees and overheads.
R2	Meter reading	Meter reading including ad hoc read requests, cyclical reading, scheduling, transport, physical reading, reading queries, read processing costs and customer read costs. Include here manpower costs, materials and contract services, fees and overheads.
R3	Maintenance of customer account information	Activities to update and maintain customer account records for changes in customer name, billing address, phone numbers, tariff, payment method, special needs information, change of occupiers. Include here manpower costs, materials and contract services, fees and overheads.
R4	Payment handling	Payment handling including mail receipt, processing, banking, maintenance of cashbook records, bank reconciliations and bank charges, processing to account for all types of payment. Processing of and bank charges for bounced cheques and returned direct debits. Letters to customers. Ad hoc customer refunds, calculation, account maintenance, BACS transmissions or cheque production and mailing. Include here manpower costs, materials and contract services, fees and overheads.
R5	Handling and resolving customers' calls, correspondence and complaints	Activities to receive, distribute and process all customer contacts and complaints. Liaison with other internal operating departments of the water undertaker. Investigations. Provide holding and substantive replies. Include call centres, customer outlets and face-to-face facilities. Include manpower costs, materials and contract services, fees and overheads.
R6	Debt collection and recovery procedures	Overdue debt follow up, including reminders, letters, outbound calling, site visits, debt collection agency costs, field collectors, disconnection process costs and court fees. Negotiation and monitoring of payment arrangements and settlements. Include here manpower costs, materials and contract services, fees and overheads.
R7	Doubtful debts (not customer specific)	This should be based on (an allocation of) the value from table 21, line 18 of the June return.
R8	Advice on water efficiency and quality	Water efficiency advice: this activity will become the responsibility of the retailer for its customers under the WA03 and may therefore largely become an avoided cost. Water analysis services provided free of charge should also be included here. Include here manpower costs, materials and contract services, fees and overheads.
R9	Sales, marketing	Include here all marketing, sales and promotional activities intended to grow

	and provision of information to specific customer	the customer base. Include here manpower costs, materials and contract services, fees and overheads.
R10	Account management activities	Include staff costs for maintaining relationships with eligible customers, periodic meetings, advice, travel costs and entertainment. Include here manpower costs, materials and contract services, fees and overheads.
R11	Cost of customer credit	Include here the financing cost of providing credit to customers. This may be calculated by considering "average" supply dates compared to "average" payment dates.
R12	Other services provided to specific customer	Include here all the services commonly provided free of charge such as a number of days free leakage detection work, free water sampling and analysis, and other value added free services. Include here manpower costs, materials and contract services, fees and overheads.
R13	'Other' retail costs	Include here all other retail costs not specifically allocated elsewhere under references R1 to R12 or R14. Include here manpower costs, materials and contract services, fees and overheads.
R14	Competition related capital maintenance charges	Include here capital maintenance charges for new or upgraded systems being implemented to facilitate entry in to the new competitive markets.
R15	Total ARROW costs	

Reconciliation of information in table A3.1 to June return data.

Ref.	Retail Activity	Costs* (£) allocated to all customers
R1	Customer billing	Part of June return table 21 Line 13
R2	Meter reading	Part of June return table 21 Line 13
R3	Maintenance of customer account information	Part of June return table 21 Line 13
R4	Payment handling	Part of June return table 21 Line 13
R5	Handling and resolving customers' calls, correspondence and complaints	Part of June return table 21 Line 13
R6	Debt collection and recovery procedures	Part of June return table 21 Line 13
R8	Advice on water efficiency and quality	Part of June return table 21 Line 13
R9	Sales, marketing and provision of information to customers	Part of June return table 21 Line 13
R10	Account management activities	Part of June return table 21 Line 13
	GSS payments	Part of June return table 21 Line 13
		TOTAL of above to reconcile with JR table 21 Line 13
R7	Doubtful debts	Should reconcile with JR table 21 Line 18
R11	Cost of customer credit	Additional to all the costs shown above
R12	Other services provided to eligible customers	Additional to all the costs shown above
R13	'Other' retail costs	Additional to all the costs shown above
R14	Competition related capital maintenance charges	Additional to all the costs shown above
	Total costs	Total of JR table 21 Lines 13 and 18, plus R11,R12, R13, R14.

Note: June return tables are under review, therefore line/table references may change.

Appendix 2: annex 2

ARROW costs for land sales

The way in which the net proceeds from any land sale are treated must be consistent with Licence condition K. This condition requires a 50:50 sharing of the net proceeds between customers and the undertaker.

A potential method of satisfying condition K and the costs principle is to allow the benefit of bringing forward the undertaker's share of the proceeds from the land disposal as a 'cost recoverable in some other way'. An example of this is shown below.

Assume that the water undertaker's existing water resource plan identifies that a land disposal of £2 million net value was expected at the start of year 5.

Let us assume that after water is supplied by the licensee this land disposal is now expected to be possible at the start of year 3.

Original plan	year	1	2	3	4	5
Net proceeds from land sale						£2m
50% share to customer						£1m
50% share to undertaker						£1m
Revised plan						
Net proceeds from land sale				£2m		
50% share to customer				£1m		
50% share to undertaker						£1m
ARROW costs recoverable in some other way (value of advancing sale based on prevailing pre-tax company specific regulatory rate of return @ say 7.3% pre tax)				£0.073m	£0.073m	

There are potential complications in trying to apply this approach.

For example, the water undertaker may not have identified any land disposal opportunities in its original plan. In this instance the water undertaker should include value from advancing the land sale in each year of the combined supply contract.

Appendix 3: Detailed methodology for calculating indicative access prices

Although water undertakers generally need to use a retail-minus approach to calculate access prices there are differences in the detail depending on whether the required price is case-specific or indicative. This appendix looks specifically at how to calculate indicative access prices. Case-specific access prices are covered in appendix 2.

Water undertakers need to record the rationale for establishing each of the cost and income elements in the tables in this appendix. Reporters and Ofwat will scrutinise this rationale annually.

The numerical values used in this appendix are only provided to illustrate how this guidance should be applied. They should not be taken to indicate likely values of particular elements of income or costs.

Indicative wholesale prices

We will now describe how to apply the generalised equation 6.5.1.

Access price = any expenses reasonably incurred + retail charge – ARROW costs
to calculate indicative wholesale prices.

Indicative prices need to be provided in the format described in chapter 6.9.

Retail charge

This is the revenue that the water undertaker would have expected to receive each year from the customer had the water undertaker continued to supply it with water.

This should be based on the existing large use potable tariff that is available to customers using the standard reference volumes (50 and 500 MI per year). If these are seasonal tariffs then estimates of typical summer and winter water usage or maximum daily demands should be based on company averages.

Water undertakers need to provide indicative prices for each different charging zone within an their area of supply. (These charging zones will need to be cross-referenced to WRZ to enable water undertakers to calculate indicative common carriage prices).

The retail charge should be calculated on a £ per m³ basis.

For example the tariff for 2004-05 could include:

A fixed charge of £5,000

A maximum daily demand charge of £70 per m³ per year

A volumetric charge for water supplied of £0.30 per m³

The retail charge would be:

		50 MI p.a.	500 MI p.a
Fixed charge		£5,000	£5,000
Maximum daily demand dcharge (assuming an MDD of twice average daily demand)	$£70 \times 2 \times 50 \times 1000 / 365 =$	£19,178	£191,781
Volumetric charge	$£0.3 \times 50 \times 1000 =$	<u>£15,000</u>	<u>£150,000</u>
Total		£39,178	£346,781
Retail charge/m ³	$£39,178 / (50 \times 1000) =$	£0.7836	£0.6936

ARROW costs

ARROW costs are expenses that can be avoided or reduced; or any amount that is recoverable in some other way (other than from other customers of the water undertaker). They should include overhead allocations and a rate of return.

We do not expect that a water undertaker's retail costs will vary significantly within a particular tariff area, because their retail services will largely be supported by centralised systems and resources. Consequently, water undertakers should normally calculate these ARROW costs on a company-wide basis.

The categories of retail costs which should be considered in order to identify retail ARROW costs are listed in the table below. For ease of reference, water undertakers should use this format when presenting prices to licensees.

Table A3.1: Retail ARROW costs

Ref.	Retail activity	Costs* (£) allocated to all customers	Costs* (£) allocated to all customers >=50 MI p.a.	ARROW costs* (£) for 1 customer of 50 MI p.a	ARROW costs* (£) for 1 customer of 500 MI p.a
R1	Customer billing			100	100
R2	Meter reading			200	200
R3	Maintenance of customer account information			2	2
R4	Payment handling			10	10
R5	Handling and resolving customers' calls, correspondence and complaints			4	4
R6	Debt collection and recovery procedures			4	4
R7	Doubtful debts			3	30
R8	Advice on water efficiency and quality			6	6
R9	Sales, marketing and provision of information to customers			10	10
R10	Account management activities			200	200
	GSS payments		N/A	N/A	N/A
R11	Cost of customer credit			4	40
R12	Other services provided to eligible customers				
R13	'Other' retail costs				
R14	Competition related capital maintenance charges			0	0
R15	Total ARROW costs	N/A	N/A	543	606
	Total costs			N/A	N/A
	Number of customers			1	1

* Specify cost year (e.g.2004-05) and price base (e.g. 2004-05)

The water undertaker needs to provide details of the assumptions used in allocating the costs and in calculating ARROW costs for the above table. The total costs allocated should be consistent with June return information (See Appendix 2 Annex 1). These assumptions should be recorded in a format that will enable Company Reporters to scrutinise them. Water undertakers should base their retail ARROW costs on data for the same year as the June return. These ARROW costs should be based on annual averages for their eligible customers.

Cost allocation must be fair and reasonable and there must be consistent treatment of costs for eligible and non-eligible customers to prevent cross- subsidies. Costs should be allocated to activities based on the way they consume resources. This provides a means of both identifying the ARROW costs for discontinued customer-related services and additional expenses incurred in serving the new relationship with the licensee. Water undertakers should document their rationale for allocating drivers to particular activities and their processes for establishing the costs associated with these drivers. Direct costs, indirect costs and those not related to activities should be included.

Water undertakers should identify how any elements of these costs may vary with water volume.

Expenses incurred

A water undertaker will incur expenses as a result of servicing a licensee, these should be identified against the categories in the table below:

Table A3.2: Retail expenses

Ref.	Retail activity	Additional expenses* (£) for serving licensee with 1 customer of 50 Ml/yr.	Additional expenses* (£) for serving licensee with 1 customer of 500 Ml/yr.
	Licensee billing	50	50
	Meter reading	100	100
	Maintenance of licensee account information	1	1
	Payment handling	5	5
	Handling and resolving licensee's calls, correspondence and complaints	1	1
	Debt collection and recovery procedures	0	0
	Doubtful debts	0.2	2
	Advice on water efficiency and quality	0	0
	Sales, marketing and provision of information to customers	0	0
	Account management activities	20	20
	Cost of licensee credit	2	20
	Other services provided to eligible customers	0	0
	'Other' retail costs	0	0
	Competition related capital maintenance charges	10	10
	Total costs allocated	189.2	209

* Specify cost year (e.g.2004-05) and price base (e.g. 2004-05)

Indicative wholesale price calculations

The wholesale price calculation can now be completed using the three components calculated above:

Table A3.3: Indicative wholesale price calculations

Indicative Wholesale Price Calculation for 2004-05		50 Ml per year	500 Ml per year
Retail income	£*	39,178	346,781
Less ARROW costs	£*	543	606
Plus expenses	£*	189	209
Access charge	£*	38,824	346,384
Wholesale price	£/m ³	0.7765	0.6928

* Specify Price Base (e.g. 2004-05)

Water undertakers should not include the effects of taxation when calculating indicative prices.

Although water undertakers' tariffs are subject to approval annually, an indication of the future trend in retail tariffs should be based on large user K assumptions from the most recent price control review. Water undertakers should use their own company-specific information to produce a forecast of indicative wholesale prices as follows.

Table 6.9.1: Format required for indicative wholesale price information

	Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Company specific Large User K	%		10.0	4.0	3.5	3.0	2.0
For 50 MI per annum							
Retail price	£/m ³ *	0.7836	0.8619	0.8964	0.9278	0.9556	0.9747
Wholesale price	£/m ³ *	0.7765	0.8548	0.8893	0.9207	0.9485	0.9676
Wholesale discount	£/m ³ *	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071
For 500 MI per annum							
Retail price	£/m ³ *	0.6936	0.7629	0.7934	0.8212	0.8458	0.8628
Wholesale price	£/m ³ *	0.6928	0.7621	0.7926	0.8204	0.8450	0.8620
Wholesale discount	£/m ³ *	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008
* Price base [2004-05]							

This information can be converted from 2004-05 to 2005-06 prices by applying the inflation index of 3.45.

Indicative wholesale price information should be provided in the above format for each geographic tariff area for the supply of two standard volumes of water (50 and 500 MI per year).

Indicative combined supply prices

Although indicative combined supply prices are calculated on the same basis as indicative wholesale prices, there are more ARROW cost elements that need to be taken into account. Water undertakers should use company-specific information in their calculations.

Arrow costs

The ARROW costs for obtaining and treating water need to be calculated by comparing the water undertaker's forecast costs of maintaining the supply-demand balance with and without entry by the licensee. Those ARROW costs are in addition to any that relate to retail costs as described in the previous calculation of indicative wholesale prices. They should include a rate of return.

Worked examples

Two worked examples are shown below for the standard volumes of 50 and 500MI per year. The wholesale ARROW costs for the combined supply are the same as for the wholesale-only supply above.

When a licensee introduces water into a water undertaker's supply system this will affect the forecast costs for obtaining and treating water in the particular WRZ. This needs to be reflected in ARROW costs. These costs are specific to the WRZ.

The following example shows a WRZ that has a current supply-demand surplus but is expecting to move to a deficit. The water undertaker is planning to overcome this deficit by investing £2 million in 2006-07 in order to make an additional 5 MI/day available in 2007-08.

The assumptions used in this example are to illustrate the method of calculation. They are:

- The financing cost of capital of 7.3% post tax.
- The current cost depreciation has been based on 80% of the capital depreciating over 35 years.
- The operating expenses (opex) of providing and treating existing water is £0.04 per m³. This is shown as 'other opex saved' for the period before the new capacity being utilised.
- The opex cost of water from the newly created capacity is £0.14 per m³.
- The water undertaker is assumed to fulfil their duties under Section 63AC in the event that the licensed water supplier ceases to supply.

Example one

It has been assumed that a 50 MI /yr. common carriage input commences at the start of 2005-06.

Table A3.4.1: ARROW costs resulting from common carriage element

		2005-06	2006-07	2007-08	2008-09	2009-10
<u>Supply demand balance with no investment</u>	MI/d.	2	1	0	-1	-2
<u>Forecast supplydemand balance with investment without licensee's water</u>	MI/d.	2	1	5	4	3
Additional water due to be made available by water undertaker	MI/d.		5			
Capital expenditure (capex) to provide additional water	£ m		2			
Financing cost of capex	£k			146	146	146
Current cost depreciation	£k			46	46	46
Ongoing opex for providing additional water	£k			50	100	150
Total costs	£k			242	292	342
<u>Water undertaker's revised supply demand Balance with common carriage of 50 MI /yr.</u>						
Additional water from licensee	MI/d.	0.14	0.14	0.14	0.14	0.14
Additional water due to be made available by water undertaker	MI/d.			5		
Revised supply demand balance with investment and licensee's water	MI/d.	2.14	1.14	5.14	4.14	3.14
Capex to provide additional water undertaker's water	£ m		1.8	0.2		
Financing cost of capex	£k			131	146	146
Current cost depreciation	£k			41	46	46
Ongoing opex for additional water	£k			43	93	143
Other opex saved	£k	-2	-2			
Total costs	£k	-2	-2	216	285	335
ARROW costs with 50 MI/y common carriage input	£k	2	2	26	7	7
Equivalent ARROW costs per m ³ .	£/m ³	0.0400	0.0400	0.5204	0.1370	0.1370

Example two

We have assumed that a 500 MI /yr common carriage input commences at the start of 2005-06.

Table A3.4.2: ARROW costs resulting from common carriage element

		2005-06	2006-07	2007-08	2008-09	2009-10
<u>Supply demand balance with no investment</u>	MI/d.	2	1	0	-1	-2
<u>Forecast supply demand balance with investment (but without licensee's water)</u>	MI/d.	2	1	5	4	3
Additional water due to be made available by water undertaker	MI/d.		5			
Capex to provide additional water	£ m		2			
Financing cost of capex	£k			146	146	146
Current cost depreciation	£k			46	46	46
Ongoing opex for providing additional water	£k			50	100	150
Total costs	£k			242	292	342
<u>Water undertaker's revised supply demand Balance with common carriage of 500 MI /yr</u>						
Additional water from licensee	MI/d.	1.37	1.37	1.37	1.37	1.37
Additional water due to be made available by water undertaker	MI/d.				5	
Revised supply demand balance with investment and licensee's water	MI/d.	3.37	2.37	1.37	0.37	5.37
Capex to provide additional water undertaker's water	£ m				2	
Financing cost of capex	£k					146
Current cost depreciation	£k					46
Ongoing opex for additional water	£k					50
Other opex saved	£k	-20	-20	-20	-20	
Total costs	£k	-20	-20	-20	-20	217
ARROW costs with 500 MI/yr licensee's input	£k	20	20	262	312	125
Equivalent ARROW costs per m ³ .	£/m ³	0.0400	0.0400	0.5234	0.6234	0.2494

Indicative combined supply price calculations

The common carriage price calculation can now be completed using the ARROW costs calculated in examples one and two together with the information used to calculate the indicative wholesale prices.

Table A3.5: Common carriage price calculations

	Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Common Carriage of 50 MI /yr							
Company specific large user K	%		10.0	4.0	3.5	3.0	2.0
Retail income	£*	39178	43096	44820	46388	47780	48736
Less ARROW costs (Wholesale element)	£*	0	543	543	543	543	543
Less ARROW costs (common carriage element)	£*	0	2000	2000	26000	7000	7000
Plus expenses	£*	0	189	189	189	189	189
Access charge	£*	39178	40742	42466	20035	40426	41382
Access price discount	£/m³*	0	0.0471	0.0471	0.5271	0.1471	0.1471
Common Carriage of 500 MI per annum							
Company specific large user K	%		10	4	3.5	3	2
Retail income	£*	346781	381459	396717	410602	422920	431379
Less ARROW costs (Wholesale element)	£*	0	606	606	606	606	606
Less ARROW costs (common carriage element)	£*	0	20000	20000	262000	312000	100000
Plus expenses	£*	0	209	209	209	209	209
Access Charge	£*	346781	361062	376320	148205	110523	330982
Access Price Discount	£/m³*	0	0.0408	0.0408	0.5248	0.6248	0.2008
* Price base (2004-05)							

Indicative access price discounts should be shown in full even if the discount exceeds the retail price and negative access charges would result.

Water undertakers should not include the effects of taxation when calculating indicative prices.

Format for publication

Table 6.9.2: Format for indicative combined supply prices

Access start date (e.g. 2005-6) [^] Water resource zone (X) in Tariff area (Y), price base (e.g. 2004-05).		2005-06	2006-07	2007-08	2008-09	2009-10
Forecast supply surplus without licensee's water or water undertaker's investment* (-ve is deficit)	MI/d	2.00	1.00	0.00	-1.00	-2.00
50 MI per year						
Retail price	£/m ³	0.8619	0.8964	0.9278	0.9556	0.9747
Combined supply discount	£/m ³	0.0471	0.0471	0.5275	0.1441	0.1441
Supply surplus with licensee's water and water undertaker's revised investment plan.	MI/d	2.14	1.14	5.14	4.14	3.14
500 MI per year						
Retail price	£/m ³	0.7629	0.7934	0.8212	0.8458	0.8628
Combined supply discount	£/m ³	0.0408	0.0408	0.5242	0.6242	0.2008
Supply surplus with licensee's water and water undertaker's revised investment plan.	MI/d	3.37	2.37	1.37	0.37	5.37

Note: [^] Water undertakers should provide versions of this table with entry starting in each of the next five years and ending in 2009-10.

*It will be necessary to provide this information for each of the 25 years covered by the water resource plan.