



A DEVELOPERS GUIDE TO WASTEWATER ADOPTIONS
SEWERS FOR ADOPTION 6TH EDITION

Introduction

United Utilities are responsible for the provision of wastewater services for over 7 million customers throughout the North West of England. United Utilities require that any new works associated with the wastewater network be constructed to the high standards set by the Company. This applies to Developers or individuals making new connections to the wastewater network, or constructing new sewers for future adoption in accordance with Section 104 of the Water Industry Act 1991.

The purpose of this document is to guide prospective developers through the procedures associated with making an application to connect to the public wastewater network and making an application to have new sewers adopted via an agreement under Section 104 of the Water Industry Act 1991.

Customer Service

United Utilities are committed to providing our customers with the highest standards of service. In return we ask that our customers read and understand our requirements and supply the requested information and documentation in sufficient time, to enable us to deal with your application efficiently.

Your responsibility to us

- If you are not satisfied with our standards of service, please let us know, so that we have the opportunity to put things right
- If you wish to do so, you can put your complaint in writing

Our responsibility to you

Our aim is to get things right first time, however, if we get things wrong we will agree actions to avoid it happening in the future

We will let you know when your actions do not help us to deliver the service we would like

- We will deal with a query about customer service made in writing, in person or over the phone within ten working days of receiving it.

General Requirements

Developers working within the United Utilities area are requested to make submissions for any new sewers that they propose to offer for adoption in accordance with '**Sewers For Adoption 6th Edition- a design and construction guide for developers**' published by the Water Research Centre, Frankland Road, Blagrove, Swindon SN5 8YF, and in accordance with this Developers Guide.

If the proposed development contains a pumping station, United Utilities Pumping Station addenda document should be obtained and read in conjunction with 'Sewers for Adoption'

Please note that United Utilities are entitled to charge extra fees for assessment of submissions, which are not in accordance with this document or for subsequent assessment if your initial submission does not comply with our requirements.

Making Your Submission SfA ref Table 1.1

You should ensure that all of the information required to complete your submission has been provided, as listed in 'Sewers for Adoption', and this Developers Guide. You should then make your submission to the relevant United Utilities Wastewater Adoption team as listed in **Contact Details**

Within ten working days of receipt of your submission we will advise you if your submission is complete or list any omissions from your submission, using a checklist. Please ensure that any missing information is provided as soon as possible to enable your submission to be fully assessed.

Once your submission is complete, we will advise you within 20 working days if your submission is technically satisfactory, or what aspects of the submission do not comply with our requirements.

Consent to Discharge SfA ref 1.11

Where 'consent to discharge' is required from the Environment Agency or other body, developers must not agree to any conditions without first obtaining the approval of United Utilities.

Highway Drainage SfA ref 1.12

The developers' attention is drawn to clause 1.12 of 'Sewers For Adoption' 6th edition which states that the sewerage undertaker is not obliged to accept highway drainage to the existing public sewerage system. In areas where the existing sewerage system is known to be already overloaded, or where there are viable alternatives to using the existing sewer network to serve highway drainage.

The developer will be required to investigate alternative methods of disposing of highway drainage runoff with the relevant Highway Authority.

United Utilities are developing a Legal Agreement which the adopting Highway Authority will be required to enter into with United Utilities before new highway drainage will be permitted to connect to the public sewerage system.

The Developer must discuss this with the Highway Authority as part of your Section 38 highway adoption proposals.

Diversion of Existing Sewers SfA ref 2.16

Provision is made for the model form of agreement to be extended at the undertaker's discretion to cover small on-site diversions of existing public sewers as part of the developer's drainage works. United Utilities is prepared in principle to exercise this discretion, but requires individual case to be submitted for approval before any works commence. If approval is given, then Developers will need to comply with the requirements contained in the Third Schedule to the model form of agreement, including the payment of a cash deposit equal to the estimated cost of construction of the diverted sewer which will be refundable in stages, as outlined in 'Sewers for Adoption'.

NOTE that permission to commence work in advance of signing the Section 104 Agreement will not be granted where a diversion of any public sewer is to be included in the development.

Existing Sewer Connections

If the site is one that was previously developed, there may be existing connections to the public sewer network. In some circumstances you may be able to re-use existing connections to serve private drainage. Existing connections will not normally be considered for adoption as part of your new sewerage system.

You should make a reasonable attempt to find and seal any connections that are not going to be re-used as part of your new drainage system.

Sewer Requisitions

If you cannot connect your development to an existing public sewer without crossing land in third party ownership, and you cannot agree an easement with that third party land owner, you may need to **requisition** a sewer. Under the provision of Sections 98-101 of the Water Industry Act 1991, you may in certain circumstances, require United Utilities to construct a public sewer to serve your site. You will be liable for the cost of the construction of the sewer and be required to enter into a legal agreement with United Utilities to enable a sewer to be requisitioned.

If you think you need to requisition a sewer, please discuss with the Wastewater Adoption Teams at the earliest possible opportunity

Section 104 Agreement SfA ref 1.4

The necessary legal agreement will be prepared by our Legal Section and will be in accordance with the standard agreement in 'Sewers for Adoption'. There will be a separate Legal Fee for the preparation of the agreement, which must be paid before the agreement is signed.

Please note that **NO DIVERGENCE** from the wording of the agreement will be accepted. Attempts to change the agreement will lead to delay and increased legal costs.

You will be advised of the drawings etc required for inclusion in the agreement once your submission has been granted technical approval.

Interim Approval to Commence Work Prior to Signing the Section 104 Agreement SfA ref 1.4

Developers may commence construction of the sewers after detailed plans are agreed and before the formal Agreement is signed with an “interim approval”. Such interim approval will only be provided under the following conditions: -

- Any work undertaken is entirely at the developers risk
- The 2.5% fee(Clause 1.9) must be paid prior to commencement
- Agreement is for layout and materials only
- Subsequent amendments in the full Agreement must be implemented promptly
- Site inspections will be undertaken as normal to verify the quality of workmanship
- For local searches, such interim arrangements would not be classed as having a S104 Agreement in place
- The connection to the public sewer must be stopped off until the full Agreement is in place
- Completion of the full Agreement must be expedited as soon as reasonably practicable

Any interim approval will be via an application and signed certificate, specimen copies of which are included in this document.

PLEASE NOTE that an interim arrangement will not be entered into if the scheme includes the diversion of any existing public sewers.

Construction (Design and Management) Regulations 1994

For the purposes of the CDM regulations, the developer is the Client with responsibility for appointing a Planning Supervisor and Principal Contractor. United Utilities will have access to the construction site only as a third party to the contract, in order to undertake the statutory duty to inspect the works. The Principal Contractor will have responsibility for ensuring that visitors to the site are made aware of all health and safety risks.

Fees SfA ref 1.9

United Utilities will use our own tendered contract rates to estimate the sewer construction costs, to provide a consistency of fees across the United Utilities region.

Flow Attenuation SfA ref 1.14

Flow attenuation may be permitted on surface water sewers but the developer must demonstrate that all possible alternatives have been considered. The favoured methods of flow attenuation are as follows:-

- Oversized pipes
- On-line tanks
- Off-line tanks (only where previous two are not suitable)

Open storage facilities for flow attenuation will not be adopted.

For combined systems storage facilities will only be adopted for attenuation of surface water flows. The developer will need to provide a system whereby surface water flows are diverted to storage prior to combining with foul flows.

Flow Balancing Arrangements

United Utilities can only adopt underground structures as part of the sewerage system. The design of the storage should be on a basis of the worst duration for a 1 in 30 year return period storm unless otherwise specified by the Environment Agency.

United Utilities will not adopt any balancing pond. Any Surface Water sewers that are proposed for adoption and discharge to a balancing pond must be discussed with United Utilities at an early stage

Where flow attenuation is being provided but the balancing facility is not part of the proposed public sewerage system United Utilities will require confirmation that the following measures have been taken before surface water sewers draining to the balancing pond are adopted:-

- The Local Authority takes responsibility for the maintenance of the pond. Management Companies acting on behalf of the Local Authority are not acceptable.
- The freehold of the land on which the pond lies is transferred to the Local Authority.
- United Utilities is provided with a Deed of Grant of Rights to discharge into the pond in perpetuity. Such a Deed would necessarily contain provisions against development within the balancing facility, and against altering its topography.
- That measures have been taken to prevent flooding of properties.
- That a legal agreement is in place between all parties.
- A Section 104 Agreement for the surface water sewers draining to the balancing pond will not be entered into until every condition above has been fulfilled.

All such ponds should be designed to a minimum of 1 in 100 year return period. Detailed drawings, Local Authority Agreement documents, and modelling information relating to each development should be provided to aid the decision making process.

Off line and on line balancing ponds shall not discharge to any asset currently owned by United Utilities Water, or likely to be offered for adoption in the future.

SUDS Systems SfA ref 1.19

Any proposals for Sustainable Urban Drainage Systems should be discussed in detail with the relevant United Utilities Wastewater Adoptions team at the earliest opportunity.

The disposal of Surface Water 'on- site' without recourse to the public sewerage system is encouraged by United Utilities. Surface water should be connected to watercourses where practical, and soakaways or areas of infiltration should be used where possible on free draining soils.

SUDS systems discharging to a watercourse shall be designed to function against a 1 in 100 year return period. The Environment Agency should confirm this water level and details should be provided to both Planning and Building Control Authorities as well as United Utilities as part of the Section 104 submission.

Sewer Connections SfA ref 2.7

Sewer connection application forms will be required for all new connections to the public sewer. The relevant forms will be issued when technical approval for your submission has been granted.

Post Construction Connections to Sewers SfA ref 2.8

Where possible, post construction connections should be made using mechanical couplings (Flexseal, Fabekun and Bandseal all produce suitable connectors). Other types would require individual approval.

Typical Details SfA figures 2.1 to 2.10

The typical details given in SFA vary in some detailed aspects from those contained in the United Utilities Standard Details which are available in electronic or paper format on request from the Wastewater Adoption teams. United Utilities Standard Details should be used in preference the details shown in 'Sewers for Adoption'

Manhole Schedules SfA figure 2.9

A 1:20 scale manhole schedule drawing will be required for each adoptable manhole, showing to scale the internal layout, proprietary channel fittings, benching widths, access positions and cover opening sizes, along with the positions of handrailing, safety chains, step rungs or ladder and invert accesses where applicable.

Note:- Proprietary channel fittings are required to be used up to and including 300 mm in diameter, above which size granolithic in-situ channels can be used. 'T' junctions, square junctions and 90 ° bends shall not be used, 'Y' junctions, oblique junctions, and two number 45° bends being preferred.

Pumping Stations SfA parts 2, 3 & 4

United Utilities special requirements for adoptable pumping stations are detailed in a separate document, available on request (see contact numbers at the end of this document)

Flood Risk Assessments- Protection against Flooding SfA ref 2.14

During a 1 in 30 year storm, the existing public sewerage network will rarely accept free discharge from the new development. The 1 in 30 year hydraulic simulations will therefore need to be undertaken against a Surcharged outfall. Unless United Utilities are able to provide more accurate modelling information, the surcharged outfall water level should be set at 1 metre above the soffit level of the receiving sewer for the purpose of running the simulations.

If the surface water system from the development discharges to a watercourse the Highest Water Level reached in the watercourse to coincide with the critical storm duration for the development site for a 1 in 30 year storm will need to be established by the developer.

Hydraulic simulations for a 1 in 30 year storm event will need to be undertaken against the surcharged outfall using the Top Water Level in the watercourse. A freely discharging outfall may be assumed only if it can be proven that the outfall will not be surcharged on a 1 in 30 year storm.

C.C.T.V. and Light Line Surveys

Prior to issuing the Provisional Certificate, United Utilities will carry out an internal inspection of all sewer lengths to be offered for adoption. For rigid pipe materials this will be in the form of a C.C.T.V. survey and for flexible materials the C.C.T.V. survey will be supplemented by a Light Line survey.

United Utilities will not adopt any sewers where the surveys reveal structural defects or pipe deformation outside the specification for the material used. In the case of structured wall plastic pipes this deformation limit is 5%.

The developer will be required to carry out such remedial works as necessary to rectify any structural defects or deformation and provide United Utilities with a further C.C.T.V. or Light Line survey as appropriate, to demonstrate that the remedial works have been carried out satisfactorily.

United Utilities are committed to introducing new testing methods as technology advances to ensure that specifications are met irrespective of the pipe material used.

Acceptable Pipe Materials

Materials for use on adoptable sewers should be in accordance with the attached table:-

| | Foul | Storm | Pumped | Storage |
|--------------------------------|------------|------------|------------|------------|
| Clay | Y | Y | N | Y |
| Concrete | Y | Y | N | Y |
| Ductile Iron | See Note 1 | See Note 1 | See Note 1 | See Note 1 |
| Polyethylene Pipes | N | N | Y | N |
| Solid Wall PVC-U (PVC-A only) | Y | Y | N | N |
| Spiral wound welded HDPE | See Note 2 | See Note 2 | N | See Note 2 |
| Structure-walled Thermoplastic | See Note 2 | See Note 2 | N | See Note 2 |

Note 1 Internal and external protection of ductile iron pipes needs to be agreed.

Note 2 Installation of this pipe material is to be fully in accordance with the manufacturers instructions, and will be subject to post installation deformation testing prior to adoption.



Application for adoption of Sewers under Section 104, Water Industry Act 1991

A. DEVELOPER DETAILS

Name *(company name if appropriate)*

Contact Name *(if different to above)*

Address

Postcode _____

Contact Numbers:

Phone: _____

Fax: _____

B. OWNER DETAILS *(if different to above)*

Name *(company name if appropriate)*

Address

Postcode _____

Contact Numbers:

Phone: _____

Fax: _____

C. AGENT DETAILS *(to whom correspondence should be sent)*

Name *(company name if appropriate)*

Address

Postcode _____

Contact Numbers:

Phone: _____

Fax: _____

D. Company(s) Party to Section 104 Agreement

Name *(company name if appropriate)*

Address

Postcode _____

Contact Numbers:

Phone: _____

Fax: _____

E. Site Details

Site / Project name

Site Address

Postcode

Local Authority

Starting Date of Development / /

Duration of Development months

No of Properties: Domestic

Non Domestic

Do surface water sewers discharge directly to a watercourse?

(if yes please supply copy of discharge consent from Environment Agency)

Yes No

Does the Site incorporate a pumping station for adoption?

Yes No

If Yes;

Foul Water Surface Water Combined

Does any part of the system proposed for adoption lie within private land.

Yes No

F. Plan Details

Submitted Plans should be in accordance with pages 6 & 7 of 'Sewers for Adoption' and must contain the following;

- Site Layout Plan 1:500
- Location Plan 1:2500 min
- Longitudinal Sections
1:500 horizontal
1:100 vertical
- Manhole Schedules 1:20
- Typical Construction Details 1:20
- Special Construction Details 1:20
outfall structures, hydrobrakes etc
- Pumping Station details including full mechanical and electrical specification of the pumps, telemetry etc.
- Hydraulic Calculations with design parameters and plan showing contributing impermeable areas.
- Details of land transfers and sewer easements for sewers not in public highway or public open space
- Copies of consents or licences to discharge to any rivers or watercourses
- Flood Risk Assessment

SECTION 104 SEWER ADOPTION APPLICATION

TERMS AND CONDITIONS

Failure to have included any of the above information will result in the assessment of the submission being delayed. United Utilities will charge the developer for additional time spent carrying out assessments of submissions which are incomplete or unsatisfactory.

I/We confirm that this application is complete and the information supplied as indicated above, is in accordance with 'Sewer for Adoption' 6th Edition and this Guide and I/We undertake to pay United Utilities reasonable cost in preparing and processing the Legal Agreement in addition to the 2½% inspection fees as specified in 'Sewers for Adoption' 6th Edition.

Signature _____

Full Name (Block Capitals) _____ Date _____



WATER INDUSTRY ACT 1991
SECTION 104 AGREEMENT

REQUEST FOR APPROVAL TO COMMENCE CONSTRUCTION OF SEWERS BEFORE SIGNING OF AGREEMENT

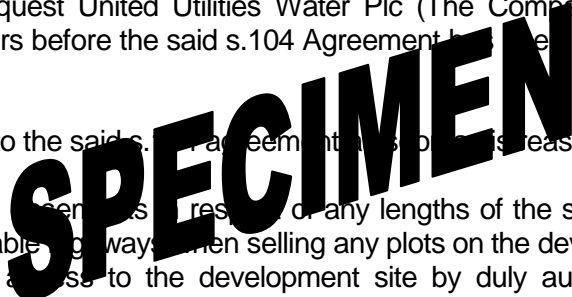
Development [lines] File ref. [line]
Estimated value £ [line]
Initial submission [line]

Developer [line]
[line]

WHEREAS

- (1) We have submitted plans for the proposed adoption of sewers at the above development pursuant to an agreement under s.104 of the Water Industry Act 1991, and
(2) The said plans have been approved by or on behalf of United Utilities Water Plc (The Company) ,and
(3) Construction of the said sewers would not normally be permitted to commence before the said s.104 agreement had been signed, and
(4) We have paid the supervision fee required by the Company.

TAKE NOTICE that we request United Utilities Water Plc (The Company) to give permission for the construction of the said sewers before the said s.104 Agreement has been signed on the conditions set out below:-



- (a) We undertake to enter into the said s.104 agreement as soon as reasonably practicable after the date hereof.
(b) We undertake to reserve [lines] of any lengths of the said sewers which are not to be constructed under adoptable [lines] when selling any plots on the development.
(c) We undertake to afford access to the development site by duly authorised representatives of the Company for purposes of inspecting the works.
(d) We undertake to stop off the connection to the existing public sewer until the said s.104 agreement has been signed.
(e) We acknowledge that in the event of us failing to comply with any of the above undertakings the Company may at its absolute discretion refuse to enter into the said s.104 agreement.

SIGNED:
For and on behalf of :
DATED:

United Utilities Water PLC
Registered in England and Wales Registered No. 2366678



**WATER INDUSTRY ACT 1991
SECTION 104 AGREEMENT**

**APPROVAL TO COMMENCE CONSTRUCTION OF SEWERS BEFORE SIGNING
OF AGREEMENT**

Development _____ File ref. _____
_____ Estimated value £ _____
_____ Initial submission _____

Developer _____

WHEREAS

(1) The developer has requested United Utilities Water Plc (the Company) to grant permission to commence construction of sewers before an agreement under the s.104 is signed, and

(2) The developer has paid to us the Section 104 fee in full of £.....

THE COMPANY HEREBY GIVES PERMISSION to the Developer to commence construction of the sewers on the above development subject to the conditions set out in their Request Form dated..... The Company also undertakes to inspect the works during construction.

SPECIMEN

SIGNED:

For and on behalf of the Company.

DATED:

United Utilities Water PLC
Registered in England and Wales registered No. 2366678

Typical Health and Safety File Format

Health and Safety File

Development _____

Developer _____

Site address _____

Contents

Section A - Ground conditions

Section B - As built records

Section C - Service details

Section D - Known hazards

Section E - Discharge consents

SECTION A – GROUND CONDITIONS

State whether or not a Site Investigation Report has been prepared and, if so, include a copy. If no Site Investigation Report has been prepared, include brief details of ground conditions encountered on the site.

Include details of any previous uses of the site that may have given rise to contamination and also a statement of whether or not a contamination report has been completed. If so, a copy should be included.

Also to be included are details of any remaining contaminants which could affect working conditions/practices together with any relevant CDM Risk Assessment, including appropriate safety precautions.

SECTION B – AS BUILT RECORDS

Include as built records in accordance with Clause 1.7

SECTION C - SERVICE DETAILS

Include details/location of new/existing services.

SECTION D – KNOWN HAZARDS

Include details of any known hazards crossing or close to the site (e.g. mine shafts, railway lines, overhead power lines, etc)

SECTION E – DISCHARGE CONSENTS

State whether a consent to discharge has been issued by any 3rd party and, if so, include a copy.

Also, provide details of the current registered holder of the consent (e.g. name and address).

CONTACT NUMBERS

| | |
|---|---------------|
| Sewer Adoption Applications | 01925-679-364 |
| Site Inspections of Adoptable Sewer Works | 08456-020-406 |
| Obtaining Copies of the Public Sewer Record Drawings | 0870-751-0101 |
| Installation of Pumping Station Telemetry - Systems Support Group | 01925-233-202 |