

Guidance notes for developers

- adoption of sewers.

Section 104 of the Water Industry Act 1991

Foreword

These guidelines are designed to be used in conjunction with the current version of “Sewers for Adoption – a design and construction guide for Developers” and will assist Developers in submitting applications that will be suitable for adoption.

This guide has been produced to offer practical assistance and whilst every attempt has been made to take on board the full range of legal and technical issues involved there may always be particular circumstances which are not accommodated in these guidelines.

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Section 1: Introduction

There are two distinct stages in the assessment of sewers that are to be adopted by an agreement under Section 104 (S104) of the Water Industry Act 1991 (WIA 1991).

The first stage is the Developers enquiry. This will determine the principles of how a site can be drained and any infrastructure improvements to accommodate the flows.

The second stage is the submission of a completed application form for the adoption of a sewer under section 104 of the Water Industry Act 1991. This should be based on the principles established by the Developer’s enquiry and the detailed requirements of Sewers for Adoption (SFA) (for further details refer to Section 3 of these guidance notes).

The application needs to be submitted to the Developer Services Team. This team will assess the application to ensure that it complies with the requirements of SFA and if appropriate the Severn Trent Connect SPS addendum. We will also check that the principles established by the Developer’s enquiry have been complied with.

The Developer Services Team will prepare the S104 agreement and will arrange inspection of the works and eventually arrange for the vesting as public sewers.

This is explained in more detail in **Section 3**.

Section 2: Developer enquires

We provide a free Developer enquiry service where we will provide guidance on your proposed connection to the local network. We may need to undertake further more detailed investigations and if this is necessary we will detail the options for progression and associated costs in our response.

A copy of our form, together with a set of guidance notes, can be obtained from our website www.severntrentconnect.com or by contacting STC on the telephone number below:
TEL: 0345 450 9549

Our response for drainage enquiries will include:

- a copy of our sewer records for the area
- confirmation of any apparatus we have that will be affected by the proposals
- information about our ability to drain the site
- where appropriate details of any offsite work needed to connect the site
- details of any further work we need to provide an optimal solution to connect the site to our networks.

Appraising development enquiries is work performed in addition to progressing an application to supply and drain a site.

Please note that we seek to control peak flows to our network. This means that flow restrictions may be requested on drainage connections and we may limit our evaluation to the flow rate we determine.

Should you only require a copy of our records, or require further information about our Developer enquiry service. Please contact us at:

Severn Trent Connect

Developer Services
Severn Trent Centre
2 St.Johns Street
Coventry, CV1 2LZ

Email: developer@severntrentconnect.com

Alternatively, you may like to visit our web site www.severntrentconnect.com where further information and copies of our forms can be obtained.

After the work in evaluating the impact of flows from your site on the sewer network has been carried out, you will be informed of the outcome. This outcome will incorporate any planning conditions that are relevant to drainage matters and identify where Requisitions or Sewer Diversions will be required.

This response will enable you to undertake the detailed design for the Sewerage System serving your site and submit a formal S104.

Section 3: The Section 104 application

3.1: Industry standards

The S104 application will comply with the current version of the WRc publication "Sewers for Adoption" (SFA) which is the Water Industry's standard design guide for adoptable sewerage systems, supplemented by STC Pumping Station Addendum.

Copies of SFA can be obtained from the publishers,
WRc plc, Frankland Road, Blagrove, Swindon, Wilts, SN5 8YF.

Copies of the addendum can be found on the WRc website www.wrcplc.co.uk/sfa

3.2: Pumping stations

When preparing an S104 application, you should avoid the use of pumping stations. Prior to accepting the use of a

pumping station you will need to demonstrate that there are no reasonable alternatives to pumping.

The design and subsequent adoption of surface water pumping stations is outside the scope of SFA national guidelines. Design guidance on STC requirements relating to adoptable surface water pumping stations is obtainable from the Developer Services Team.

The company's guidelines covering pumping station layouts and location, boundary fencing and access arrangements can also be obtained from the Developer Services Team.

Special consideration should be given to the design of terminal pumping stations delivering directly to a treatment works or where the discharge point is close enough to the works for there to be no attenuation in the gravity sewer upstream of the works. Developers are advised to open discussions with us as early as possible.

3.3: New products and technology

If the use of new products or technology is proposed, the Developer should first discuss this with the Developer Services Team to determine if it has been approved by the Company.

3.4: Permissions

Where appropriate, the following permissions must be obtained and documentary evidence provided;

Planning permission – usually obtained from the Local Authority.

Surface water discharge to watercourses – usually obtained from the Environment Agency (EA) where the discharge will be direct to watercourse or river.

British Waterways – where proposed discharges are to a canal, permission should be obtained from the British Waterways Board (BWB) in discussion with STC. Where terms are agreed with BWB, a tripartite agreement needs to be completed alongside with the S104 agreement subject to the payment of a commuted sum to STC in respect of payments to BWB on adoption.

In the case of surface water sewers, an easement for sewers constructed in private land owned by a third party, with the right to discharge to the watercourse may be required.

3.5: Section 106 (S106) connections to public sewers

For every new connection to either the public sewerage system or sewers included in a S104 agreement the Developer is required to apply under S106 of the Water Industry Act 1991.

An application to connect under section 106 for a site that has been put forward for adoption, is included within the section 104 adoptions process. A completed adoptions sewerage connection application will need to be completed and returned at the appropriate stage.

Please note that should you complete and return before the section 104 adoption agreement is completed, there will be no charge. However if you have not returned a completed application prior to the completion of a section 104 agreement, you will need to follow the normal sewer connection process and submit a full sewerage connection application form and associated payment, per connection.

Copies of both forms and associated guidance notes can be found on our website at: www.sevrntrentservices.com

You must allow a time-scale of 21 days between submission of a complete application and approval.

Once the Developer Services Team has approved the S106 application the connection will be inspected by the appropriate local inspector. You must give a minimum of 48 hours notice for these inspections.

STC encourages the adoption of private sewers and public lateral drains. Hence it is a condition of the approval of connection that any new sewer or new lateral drain located within the highway will be vested in the company. Pipes located within the site will remain in private ownership.

Sewers in the highway must be designed and constructed to our Sewer Adoption standards whilst lateral drains in the highway must be designed and constructed to our Lateral Drains to Sewer Standards.

3.6: Submitting the Section 104 (S104) application

1. Application

The application form for the adaption of a sewer under section 104 of the Water Industry Act 1991 will be submitted to the Developer Services Team. They will progress your application in accordance with the procedures set out in SFA.

2. Technical assessment of S104 application

A Developer Services Technician will use the checksheet to determine whether the application contains all the mandatory information for a technical assessment to be carried out.

3. Incomplete applications

If the application is incomplete it will be returned to you with the missing information identified. You will then have to resubmit to the Developer Services Team.

4. Complete applications

Complete applications will be checked to assess compliance with Industry Standards, if it is not technically compliant you will be requested to make revisions or amendments.

5. Second design submission

If the application was not complete or technically compliant and you do not provide any requested revisions or amendments within four weeks, or a requested revision or amendment does not meet the requirements, the application will be considered a second design submission.

If you amend a submission that has already been checked and was technically compliant the application will be considered a second submission.

You will be charged for checking second submissions in accordance with the scale of charges set out in Section 6 Fees and Bonds.

NB. These fees are payable in advance of the checking of the re-application.

3.7: The agreement

The Company has a standard Section 104 agreement based on the model in SFA.

No alterations to this standard document apart from factual corrections will be permitted.

Completion of the S104 agreement will signify the company's formal acceptance of the proposed sewerage system and arrangements will be made to carry out the site inspections.

3.8: Commencement of works

Site inspections will not commence until:

- technical compliance has been given
- the appropriate inspection fees have been paid
- section 104 Agreement is completed
- Construction Design and Management (CDM) requirements are met
- programme of works received and
- a pre start meeting has taken place.

3.9: Inspection of the works

When construction work is to commence the Developer must inform the Developer Services Team of the intended commencement date and arrangements will be made to hold a pre start meeting and inspect the works.

Inspections will generally be carried out in accordance with 'CIRIA Report 118 – Supervision of Sewers for Adoption' ISBN 0-86017-308-9. If a more frequent level of inspection is required then the cost will be charged in accordance with the company's scale of charges at rates agreed on a site by site basis.

3.10: Variations

Construction variations may not be agreed with the inspector on site and all changes i.e. change of line, level, materials and manhole type etc. must be approved in writing and amended drawings issued where appropriate by the Developer Services Team.

3.11: Start of maintenance

The maintenance period will commence after completion of the works and as soon as the development is at a stage where the premises are 51% constructed and occupied and all the conditions of Clause 8 of the First Schedule in the Agreement have been satisfied.

"As Constructed Drawings" have to be submitted at this stage, together with a CDM Health and Safety file. Please contact the Developer Services Team for further information.

In order that instructions can be given to our Legal Team with regard to pumping stations we require eight copies of an "As Constructed drawing" showing the land to be transferred along with any rights of access from an adjacent public highway.

Please contact the Developer Services Team for further information about the format for the above drawings.

NB: If there is a pumping station, the telemetry system must be installed and operational in accordance with our monitoring system for maintenance to start.

A visual (includes a CCTV survey) inspection of the sewers, manholes and any pumping station will be completed at this time to ascertain defects which may have arisen since construction. A written list of any defects will be issued identifying those which must be put right before the maintenance period can begin. On confirmation of this a provisional certificate and list of any minor defects to be resolved during the maintenance period will be issued at the start of the maintenance period.

3.12: Final Inspections two months before end of maintenance

Final inspection of the sewers and pumping station will be carried out two months before the end of the maintenance period, and will comprise of the following;

- inspection of manholes and outfall structures
- inspection of pumping stations structures
- if deemed necessary a further CCTV inspection carried out by the company's nominated CCTV contractor and paid for by the Developer.

Note: It is the Developers responsibility to:

- provide all necessary labour and safety equipment to enable the company's representative to carry out the inspections
- to ensure that the all the sewers have been thoroughly cleansed prior to the CCTV being carried out, you will therefore be informed of the approximate date of the survey in advance.

If defects are revealed during the final inspection the Developer will be issued with a written defects list and will be required to undertake the necessary remedial works to the company's satisfaction and within an agreed time period.

Any repaired sewers or manholes will require further inspection and the cost of this work will be at the Developers expense and in accordance with the company's scale of charges set out in Section 6: Fees and Bonds.

3.13: Sewer Adoption

1. Prior to adoption

Adoption of the works will proceed once all the provisions of the agreement have been met. For reference, prior to formal adoption of the sewers, the following is required:

- final inspections completed with no defects outstanding
- legal matters referring to land transfers for pumping stations, rights in relation to SUDS facilities and or any deed of grants have been completed
- all items on the pumping station action list provided at start of maintenance period
- 'As constructed' drawings to allow us to update the public sewer records
- CDM Health and Safety File – file prepared in accordance with the CDM regulations containing any information which will assist the company when carrying out future construction or maintenance work on the sewers
- sewers downstream of your site are public.

2. Adoption

At the end of the maintenance period and provided that there are no outstanding matters, the completed works will be adopted by a declaration pursuant to S104 of the Water Industry Act 1991.

The Developer will be issued with a copy of the vesting certificate, together with a schedule and plan indicating the sewers adopted.

3.14: Release of bond

If there are no land issues, the bond will be released on the issue of the provisional certificate except where there is a pumping station. In this case the bond will reduce to 15% of the cost of the pumping station. Early release or reduction of the bond will not be permitted.

STC will not issue an instruction to the surety to release the bond, since it is incumbent on the Developer to make an application direct to the bondsman to cancel the bond.

Section 4: Requisitions diversions and Section 102 applications

4.1: Sewer/lateral drain requisitions

1. Sewer/lateral drain availability

If a public sewer/lateral drain is not available, then STC may have a duty under Section 98 (S98) of the Water Industry Act 1991 as amended by the Water Act 2003 to provide one to be used for domestic purposes in response to a sewer/lateral drain requisition enquiry. Full details are given in Guide for Developers – Providing a Public Sewer/ Lateral Drain, available from our website www.severntrentconnect.com.

The following brief notes provide some guidance;

2. What can I requisition a public sewer/lateral drain for?

A public sewer/lateral drain may only be requisitioned for domestic purposes. In relation to any premises, this means the removal of flows from the contents of lavatories, water used for cooking and washing and for the removal of surface water from those premises.

Domestic purposes does not include the removal of water used for commercial purposes such as a laundry business or for a business preparing food or drink for consumption otherwise than on the premises.

You may not requisition a public sewer/lateral drain to serve solely trade effluent or highway drainage flows. However, additional capacity can be provided in a public sewer/lateral drain, requisitioned for domestic purposes, for trade effluent or highway drainage flows provided that you pay the full cost of providing that additional capacity, with costs being calculated based upon a proportion of flow basis.

3. Who can requisition a public sewer/lateral drain?

You may serve notice on us to requisition a public sewer/lateral drain for domestic purposes if you are:

- the owner of land or premises or
- the occupier of land or premises or
- a Local Authority, New Town Development Corporation or Urban Development Corporation.

and if the premises comprise:

- land on which there are already buildings, or
- land on which there are proposals for buildings.

Your development proposals must have sufficient certainty to enable a project to be designed to take the proposed flows. The possession of a valid planning permission is generally taken as confirmation of "proposals for buildings".

If you decide that a sewer requisition/lateral drain is appropriate for your particular development site, then please contact our Developer Services Team on:
TEL: 0345 450 9549

4.2: Sewer diversions

1. Diversion details

The Developer's enquiry will identify any public sewer crossing your site which may need diverting to comply with our protected strip widths or to facilitate development on the site.

If a sewer diversion is appropriate for your particular development site please contact our Developer Services Team for further information and an application form.

Sewer diversions in STC may be achieved in two ways:

- complex diversions by Section 185 (S185) of the Water Industry Act 1991
- simple diversions by private arrangement using an agreement under S185 of the Water Industry Act 1991.

Upon receipt of your completed application for the diversion of a STC asset and its accompanying initial deposit, your application will be evaluated and a decision will be made on whether a diversion is reasonable and whether it is complex or simple. If as part of the evaluation it is necessary for us to carry out hydraulic modelling we will advise you of the cost involved. You will have to consent to pay this cost for your application to proceed.

2. Complex diversions

If after this evaluation, the diversion is deemed to be valid and complex you will be informed that the works will be designed and constructed by STC in line with Section 185 (S185) of the Water Industry Act 1991.

Once a valid application has been submitted and the initial payment made, we will undertake a preliminary design. As part of this process, we will consider the various options, we will discuss these options with you if appropriate and we will make a formal offer based upon the preferred option. Once the offer has been accepted and any additional payment made, your application will be processed.

3. Simple diversions

If after the evaluation the diversion is deemed to be valid and simple. Subject to technical requirements you will be allowed to self construct the works under a formal Self Construct Sewer Diversion agreement in accordance with S185 of the Water Industry Act 1991.

The charges, fees and cash deposits for this are set out in Section 6.

Simple diversions carried out under this arrangement have the following key stages:

- initial feasibility
- agreement signed, method statement approved and all monies deposited
- pre-start meeting held
- construction of "off line" diversion by the Developer
- application in writing by Developer for permission to turn flows into the "off line" diversion
- As constructed plans and CDM files and CCTV supplied by the Developer
- return of cash deposit (subject to NRSWA 5% retention).

4.3: Sewer adoptions Section 102 (S102)

All newly built sewers constructed as part of developments may be dealt with by an agreement under S104 of the Water Industry Act 1991. However we recognise that in some situations the most appropriate drainage solution may include some existing private sewers that are to be considered for adoption under S102 of the WIA 1991.

It is essential that you contact the Developer Services Team at feasibility stage where this is being considered so they can advise you of the requirements to be fulfilled.

Section 5: Sustainable Drainage Systems (SUDS)

5.1: Company SUDS position statement:

STC fully supports the concept of SUDS, and will consider the adoption of them as part of the adoptable network. We believe that subject to proper design and maintenance provisions, appropriate SUDS techniques offer real opportunities to reduce the impact on the environment.

We recognise, though, that the different techniques involved can vary in their effectiveness, depending in part on local conditions.

We ask that you please contact us at your earliest opportunity to discuss, should you be considering the use of SUDS within your drainage design.

Copies of our latest SUDS guidance document and current policies can be found on our website at www.severntrentconnect.com

Or should you prefer you can call our Developer Services Team on 0345 450 9549 to discuss.

We recognise, though, that the different techniques involved can vary in their effectiveness, depending in part on local conditions.

5.2: Flow balancing

Flow balancing is a method of attenuating peak discharge rate from the new sewer to that which can be accommodated in the receiving public sewer or watercourse. For surface water sewerage it is considered increasingly as an alternative to major watercourse or sewerage improvements.

- The company accepts the use of covered tanks as an ancillary within the sewerage system, however, the company will take into account the increased maintenance liability when considering such proposals
- The company's specification and design criteria covering surface water balancing tanks can be obtained from the Developer Services Team.

Section 6: Fees and bonds

Our development sewerage charges are detailed in our Developer Charges Summary. Available from our website: www.severntrentconnect.com

Appendix A: Contact information

Severn Trent Connect

Developer Services
Severn Trent Centre
2 St.Johns Street
Coventry, CV1 2LZ

Email: developer@severntrentconnect.com

Appendix B: Lateral drains to sewer standards

Lateral drain and sewer connections to sewer standards

Under the provisions of the Water Act 2003, STC has the power to take ownership of new drains and sewers. Our policy is to take ownership of all new drains and sewers located within public highway. If we did not do this, pipes would remain in private ownership and the joint responsibility of all properties draining through them. Please note that a drain is a pipe which serves only one property. A sewer is a pipe which serves more than one property.

It is necessary for new pipes which are normally located in the highway and which are to be vested in STC to be constructed to a minimum standard specification. This standard is the current edition of "Sewers for Adoption" published by Water Research Centre.